

CITY OF SANTA CLARA, CALIFORNIA

Alviso Village Townhomes

**Planning Cases PLN2015-11152,
PLN2015-11153, and CEQ2015-01196**

INITIAL STUDY &
MITIGATED NEGATIVE DECLARATION

OCTOBER 2015



Alviso Village Townhomes

Initial Study/Mitigated Negative Declaration

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California Environmental Quality Act (CEQA) Environmental Checklist Form

1. Project Title: Alviso Village Townhomes

2. Lead Agency Name and Address:

City of Santa Clara
Planning Division
1500 Warburton Avenue
Santa Clara, CA 95050

3. Contact Person and Phone Number:

Jeff Schwilk, Associate Planner
(408) 615-2450
JSchwilk@santaclaraca.gov

4. Project Location:

1525 Alviso Street
Santa Clara, CA 95050

Assessor's Parcel Numbers: 224-29-012, 224-29-032, and 224-29-034

The project site is located on the east side of Alviso Street, where it intersects with Civic Center Drive, in the Old Quad area of the City of Santa Clara. The site is bordered on the south by an elevated on-ramp to El Camino Real (State Highway 82) and on the north by a Caltrain rail line. The site is located approximately one-half mile west of San Jose International Airport and approximately 1.3 miles north of Interstate 880.

5. Project Sponsor's Name and Address:

City Ventures
444 Spear Street, Suite 200
San Francisco, CA 94105

Contact: Samantha Hauser, Development Manager
(646) 522-4260
Samantha@cityventures.com

6. General Plan Designation:

Community Mixed Use

7. Zoning:

Light Industrial (ML)

8. Description of Project:

Overview

City Ventures is proposing to develop a residential subdivision of 40 three-story attached townhomes on an approximately 2.097-acre level site located in the Old Quad area of the City of Santa Clara, shown on Figure 1. The site is located in a neighborhood of mixed land uses, including light industrial and warehouse uses, commercial uses, and residential homes. A neighborhood park, Larry J. Marsalli Park, is located about 150 feet south of the project, on the other side of El Camino Real, which borders the southern edge of the site. An aerial overview of the site is provided on Figure 2.

The project has a General Plan designation of Community Mixed Use and a zoning designation of Light Industrial (ML). The proposal includes a request to rezone the property to a Planned Development (PD) district. Additional details on the project site are provided in Section 9, below.

The proposed project would consist of the construction of five three-story buildings, each providing between six and twelve units of for-sale townhomes. The buildings would have a maximum height of 40 feet. The three- and four-bedroom townhomes would be offered in three floor plans, ranging in size from approximately 1,700 to 2,000 square feet. All of the floor plans would have an enclosed outdoor deck. All units would also have an enclosed porch at the ground-floor entry except for those in Building 5; these units would have an enclosed, recessed entry, but no porch.

Plan A, with 1,719 square feet of living area, would have three bedrooms, two full bathrooms, and two half-bathrooms (powder rooms). The majority of the common living space (living room, den, and kitchen) would be located on the main (second) floor. With 30 units in the Plan A configuration, this floor plan would comprise the majority of the proposed townhomes.

There would be two Plan B units, both located at the southern end of Building 2, serving to link the two longer wings of the building. Plan B would provide 2,071 square feet of living area, including three bedrooms, three full bathrooms, and one half-bathroom. An optional fourth bedroom could be located on the ground floor in lieu of a den.

Eight units of the Plan C floor plan would be offered, with all of the units located in Building 5. There would be 2,008 square feet of living area in this floor plan, including two bedrooms, three full bathrooms, and one half-bathroom. The ground-floor den in this unit could instead function as a third bedroom. Unlike the other two floor plans, both entrance doors and garage access would be placed on the same side of the Plan C units, fronting on the private internal street. This design was selected to minimize the number of window and door penetrations in the building façade facing the adjacent rail corridor, so as to increase acoustic attenuation of railroad noise.

Each home would have a two-car garage in a side-by-side configuration. As shown on the site plan (Figure 3), access to the new neighborhood would be via a single entry on Alviso Street, through a distinctive entry archway. Details on the site circulation are provided below.

The project site consists of three contiguous parcels that are currently utilized for storage of cars, trucks, trailers, boats, recreational vehicles, storage containers, and other vehicles and miscellaneous items and equipment. In addition, there are two warehouse buildings on the site.

The buildings would be demolished and all vehicles and equipment would be removed from the site prior to construction of the project.

The project site would be consolidated into a single-lot subdivision with ownership townhome condominiums. The proposed Tentative Map is shown on Figure 4. Streetscape renderings of how the project would appear from Alviso Street and El Camino Real are shown on Figures 5 and 6, respectively. The proposed project would have a gross density of 19.07 dwelling units per acre (du/ac).

It is anticipated that project construction would commence in 2016 and require about 24 months to complete.

Circulation and Parking

Vehicle access to the project would be from a single private street intersecting Alviso Street; the entrance would be in the same location as the current main (northern) entrance to the site. The street would also function as an emergency vehicle access (EVA) for fire trucks, ambulances, etc. Approximately the first 45 feet of the access street would be surfaced with permeable pavers, which would reduce stormwater runoff through increased infiltration. As shown on the site plan, the street would extend across the site, terminating at a guest parking area with eight parking spaces in the southeast corner of the site. Just before the parking area would be an EVA hammerhead turnaround. Two driveways would extend south from the main access street to provide vehicle access to Buildings 2 and 3. The first driveway would be in the middle of Building 2, between the two wings of attached townhomes, while the second driveway would run behind (east of) Building 3. Both the main access street and the driveways would have a width of 26 feet, meeting minimum width requirements of the Santa Clara Fire Department.

A 5-foot-wide public sidewalk would be constructed across the site frontage on Alviso Street, connecting with an existing sidewalk on the De La Cruz Boulevard ramp abutting the site's southern boundary. A sidewalk intersecting the sidewalk on Alviso Street would extend along the northern edge of the site to provide front-door pedestrian access to Building 1. Sidewalks would also be located along the northern edges of Buildings 2 and 3, along the west and south sides of Building 4, and along the south side of Building 5. A sidewalk separating Buildings 2 and 3 would form a pedestrian paseo flanked by the private porches fronting each townhome on the paseo. The sidewalk would continue along the south side of Building 3 to connect to the community open space that would be located on the southern edge of the project site, between Buildings 3 and 4. The sidewalk on the south side of Building 4 would also provide pedestrian access to this amenity.

Each unit would have an enclosed two-car garage with carriage style metal roll-up doors. In Buildings 2, 3, and 4 all but four of the garages would be rear-loaded (the four exceptions would be side-loaded) such that no garage doors would be visible on the Alviso Street or El Camino Real site frontages. As shown on the site plan, Building 2 would be configured in a U shape, with the garages to the townhomes accessed from an internal driveway enclosed by the building. Building 3 would be oriented toward a pedestrian paseo separating Buildings 2 and 3, with the garages accessed from a rear driveway. Building 4 would be oriented toward the common open space located between Buildings 3 and 4, with the garages accessed from the private street extending across the site. The garages in Buildings 1 and 5 would also face this street, and the front of these buildings would be oriented to the north and northeast, respectively, facing a paseo extending along the north/northeast perimeter of the site. Two Class II bicycle parking racks accommodating a total of four bikes would also be provided on the site.

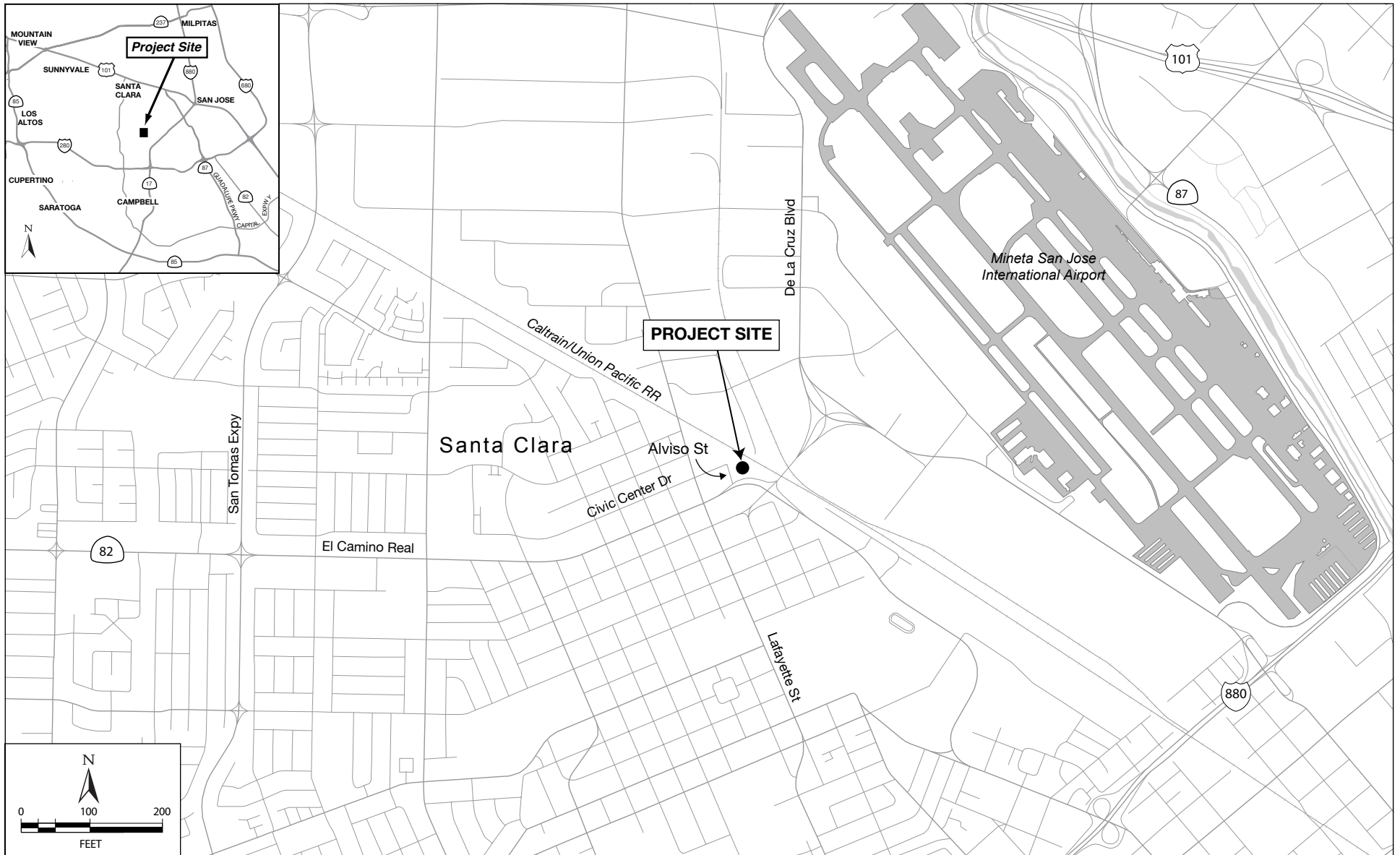


Figure 1

Project Location



Figure 2

Aerial Overview of Site and Surroundings

Source: Douglas Herring & Associates; Google Earth

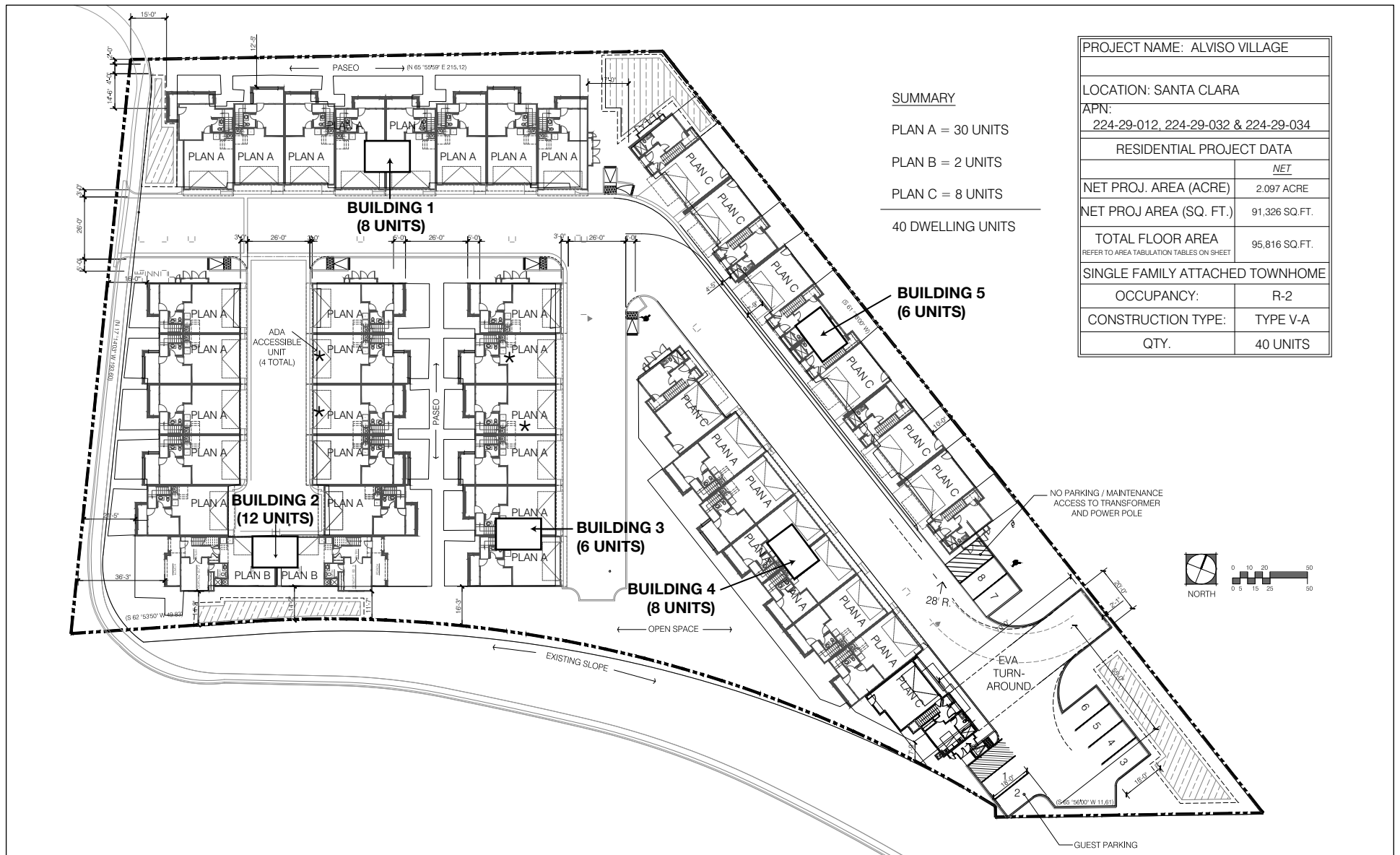


Figure 3

Conceptual Site Plan



STREET SCAPE - ALVISO ST

BUILDING 1 & BUILDING 2

Figure 5

Alviso Streetscape

Source: Hunt-Hale-Jones



STREET SCAPE - EL CAMINO REAL

BUILDING 2 & BUILDING 3

Figure 6

El Caminio Real Streetscape

Source: Hunt-Hale-Jones

Grading, Stormwater, and Wastewater

The site is essentially level and as a result, only a very limited amount of grading would be required. However, as discussed in more detail in Section VIII, Hazards and Hazardous Materials, some contaminated soil would be removed from the site, and the finished grade of the site would be slightly raised. In total, site preparation would require approximately 968 cubic yards of cuts and 4,681 cubic yards of fill, requiring about 3,713 cubic yards of imported fill. The proposed grading plan would result in street grades of 0.33 percent to 4.3 percent.

Stormwater collection and drainage would occur along the proposed streets via storm grates and catch basins located within the curbs. Collected stormwater from the streets would be directed to one of four grassy bio-retention areas located near the edges of the site, as shown on Figure 7; these swales would provide natural treatment of stormwater through biofiltration. Stormwater would also be collected from all impervious surfaces (including roofs) on the residential lots and directed to the bio-retention areas for on-site treatment of stormwater. Treated stormwater from the site would be discharged into existing storm drains running under Alviso Street and Civic Center Drive.

The project may entail replacement of the existing 12-inch storm drain under Civic Center Drive between Alviso Street and Lafayette Street with a 15-inch pipe because the existing pipe currently has insufficient capacity to accommodate the stormwater flow from the area during the 10-year storm event. Alternatively, detention facilities may be constructed on the project site to sufficiently reduce the storm flow from the site, in comparison with existing conditions, to accommodate the 10-year storm flow in the Civic Center storm drain.

Wastewater would be collected in 8-inch sanitary sewer lines running under the driveways and private access street that would connect to an existing sewer line under Alviso Street and Civic Center Drive that conveys sewage to other interceptors and community collections systems, ultimately discharging at the San Jose/Santa Clara Water Pollution Control Plant in the City of San Jose.

Landscaping and Open Space

A common open space area would be developed along the southern side of the site, between Buildings 3 and 4. As shown on Figure 8, this area would be developed as a community garden for the benefit of residents, to be maintained by the Homeowners' Association. The garden would consist of three raised planter beds, trellis structures, two picnic tables, and decorative pavements.

Each of the proposed townhomes would have private open space in the form of an enclosed outdoor deck overlooking the landscaped sidewalks or paseos providing pedestrian access to the townhomes. The pedestrian paseos would be enhanced with shrubs, trees, and decorative stamped pavement accents in a sand color, with bollard lights providing nighttime illumination. Larger trees would be planted at the site perimeters and in other strategic locations, as shown on Figure 9. A variety of trees are proposed, including redbud, hopseed, crape myrtle, Grecian laurel, fruitless olive, coast live oak, and California pepper. The City Arborist would determine the street trees to be planted along Alviso Street.

The bio-retention areas would have a ground cover of coyote bush. Toyon, silver bush, and coffeeberry shrubs would be planted in and around the bio-retention areas. A variety of other shrubs would be planted throughout the site, and bougainvillea and Boston ivy would be planted along some of the wood privacy fences. An 8-foot-high stucco wall interspersed with

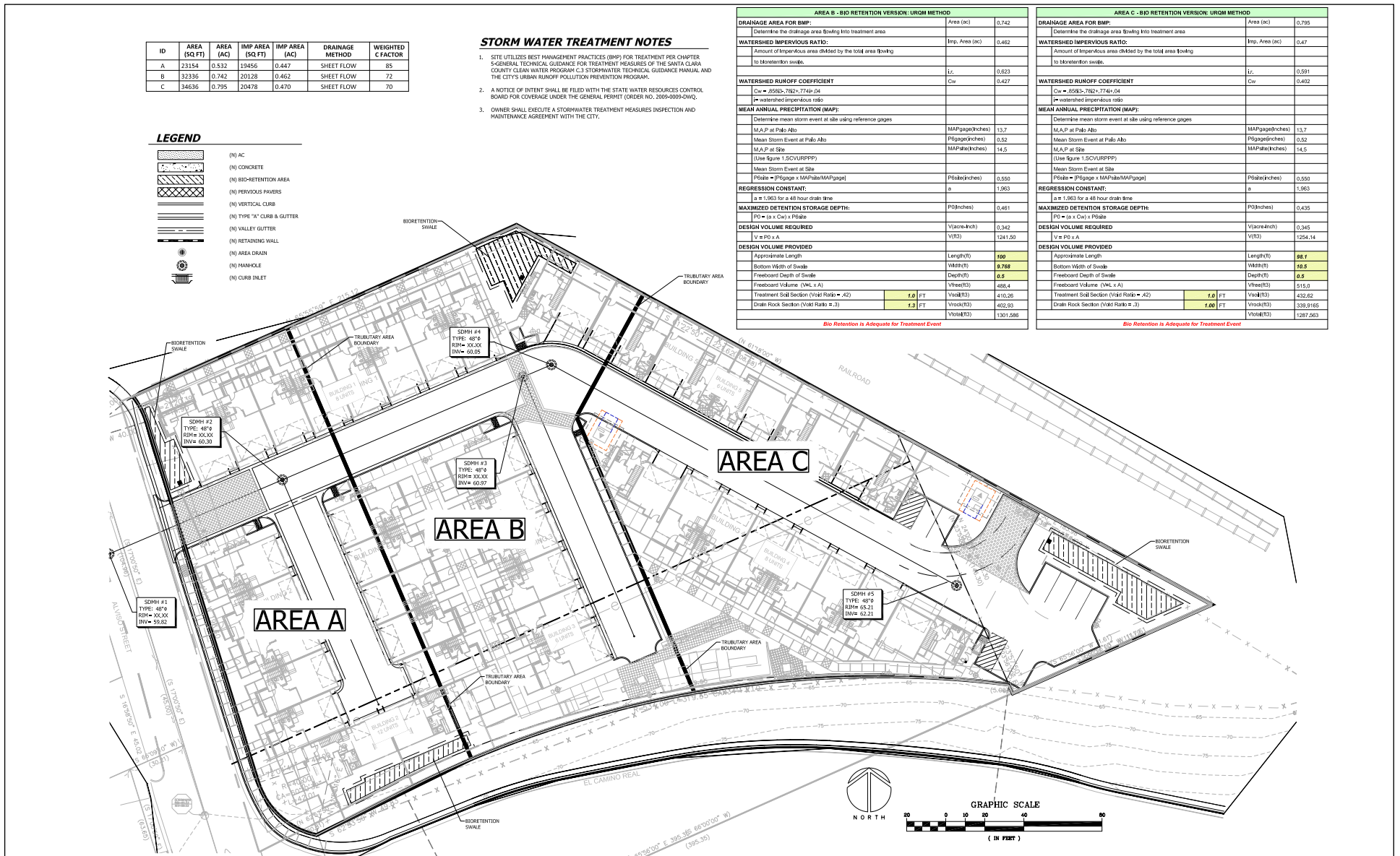


Figure 7

Stormwater Control Plan

Source: C2G/Civil Consultants Group, Inc.

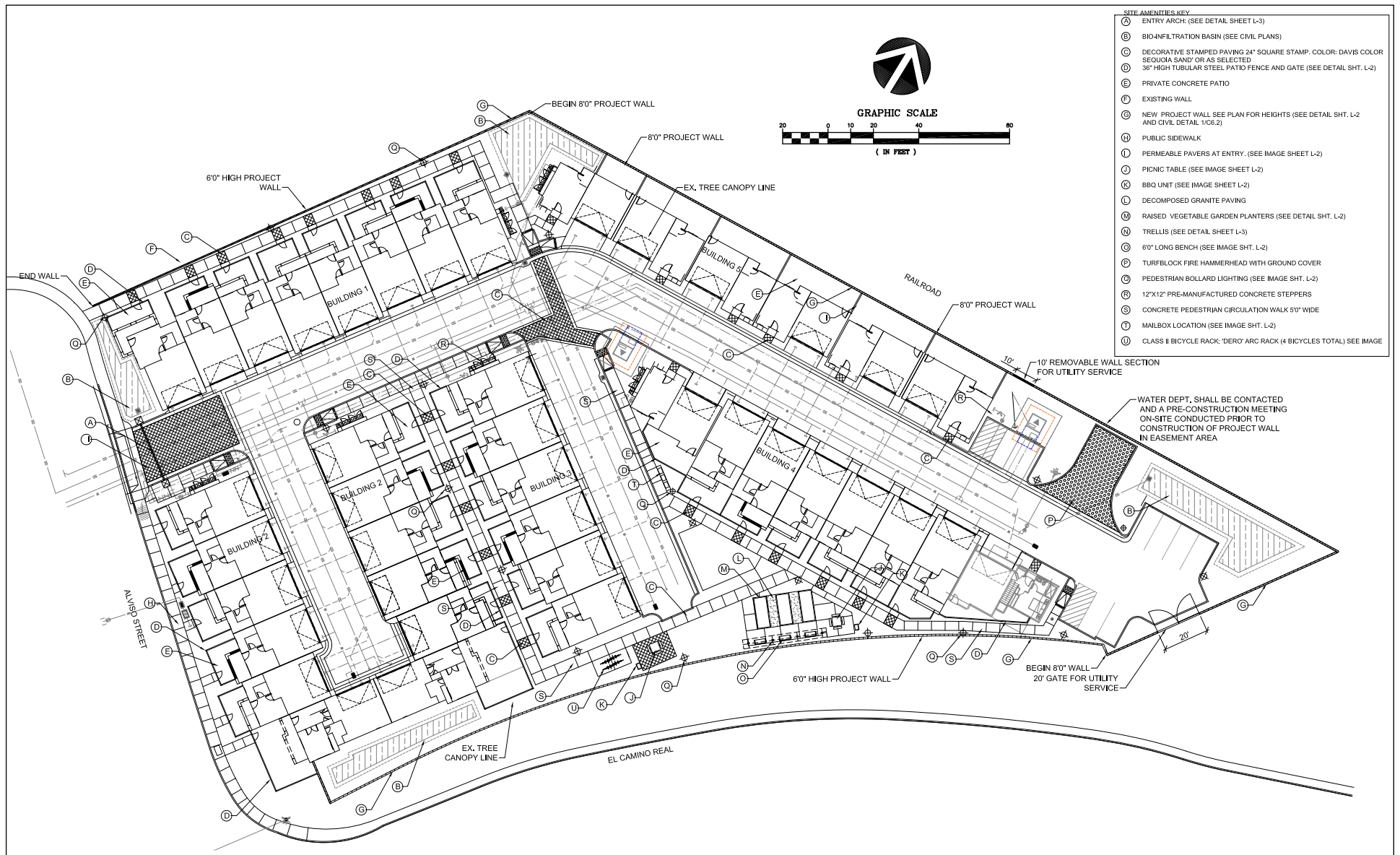


Figure 8

Site Amenities Plan

Source: Thomas Baak & Associates, LLP

capped columns would be constructed along the southern and northeastern perimeters of the site to provide privacy and act as a sound buffer from the adjacent transportation corridors.

Planning Approvals

Development Review: The project would require Development Review by the City's Project Clearance and Subdivision Committees (PCC/SC) for project compliance and consistency with the City's adopted goals and objectives, as established in the General Plan, Zoning Ordinance, City Codes, and in other regulations and standards.

Zoning Amendment: The project would require rezoning of the property from Light Industrial (ML) to a Planned Development (PD) district, subject to approval by the City Council, pursuant to Chapter 18.112 of the Santa Clara Zoning Code.

Subdivision Map: The project would require approval of a Tentative Subdivision Map by the City Council and recording of a Final Subdivision Map, in accordance with Chapter 17.05 of the Santa Clara City Code.

Architectural Review: Pursuant to Chapter 18.76 of the Santa Clara Zoning Code, the project would require architectural review and approval by the City's Architectural Committee prior to issuance of building permits.

Other Approvals

The project would also require a grading permit and building permits from the Santa Clara Building Inspection Division.

San Francisco Bay Area Regional Water Quality Control Board (RWQCB): The project would also require filing of a Notice of Intent (NOI) to the San Francisco Bay Area Regional Water Quality Control Board and preparation of a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP addresses control of stormwater pollution during construction through implementation of Best Management Practices (BMPs).

9. Site Description and Surrounding Land Uses:

The project site is a light industrial property developed with two warehouses and otherwise used for storage of a wide range of vehicles, including cars, trucks, vans, trailers, school buses, recreational vehicles, campers, and a forklift. In addition, many large storage/shipping containers are located throughout the site. One of the warehouses is currently used for storage of equipment and supplies for landscaping and roofing companies. Cars and household items are stored in the other warehouse.

Photos of existing conditions at the site are shown on Figures 10 and 11. A paved driveway, located about 120 feet south of the main entrance on Alviso Street, extends along the south side of the warehouse located adjacent to Alviso Street. The concrete pavement extends to the front of the second warehouse on the site and spans the area between the rear of the first warehouse and the front of the second warehouse. The site is otherwise unpaved. A graveled road extends across the rest of the site, and sparse ruderal vegetation grows among the many parked vehicles and storage containers.

The project site is located in a mixed-use neighborhood that transitions from light industrial and warehouse uses located to the north and northeast of the site, and commercial uses to the east, to residential neighborhoods of single-family homes located to the west and southwest of the project. The block to the west of the site exemplifies this mixed-use character, supporting single-family homes, the Mission Inn, a motorcycle repair shop, an Oil Changers shop, a sign shop, a

small commercial building with a jewelry store and doctor's offices, and a residential alcohol rehabilitation center.

The block to the north of the project is developed primarily with large light industrial buildings housing unidentified uses, but also includes a small printing shop, a former residence housing an acupuncture business, and another former residence that appears to be in use as an office building.

The Caltrain rail corridor extends along the eastern border of the site, running in a northwest-southeast direction. Mineta San Jose International Airport is located about 3,500 feet (0.66 mile) northeast of the project site. The Santa Clara Police Department is located about 1,200 feet southeast of the project, and the Santa Clara Caltrain station is located immediately to the southeast of the Police Department.

El Camino Real (State Highway 82), a major arterial, runs along the site's southern border. Just south of the project site, on the opposite side of El Camino Real, is Larry J. Marsalli Park, a 7-acre neighborhood park that includes a lighted softball field, children's playground, and picnic area. West of the park, El Camino Real is flanked by commercial uses, with residential development located to the north and south of El Camino Real.

Examples of land uses in proximity to the project site are depicted on Figures 12 through 14.



a) Project site as viewed from the existing entrance on Alviso Street, viewing east.



b) Existing warehouse building at front of site (also shown in photo above), viewing west toward Alviso Street.

Figure 10

Existing Site Conditions

Source: Douglas Herring & Associates



a) Existing warehouse building on rear portion of site, viewing southeast.



b) Rear portion of project site, viewing east. Elevated ramp to El Camino Real is visible in the background.

Figure 11

Existing Site Conditions

Source: Douglas Herring & Associates



a) Historic residence opposite project site, as viewed from project frontage, viewing west.



b) Larry J. Marsalli Park, as viewed from project frontage, viewing south.

Figure 12

Neighboring Land Uses

Source: Douglas Herring & Associates



a) The Mission Inn, located immediately to the east of the project site, viewing northeast from El Camino Real.



b) Light industrial building located at 855 Civic Center Drive, immediately north of the project site, viewing northeast.

Figure 13

Nearby Land Uses

Source: Douglas Herring & Associates



a) Commercial development on El Camino Real at Lafayette Street, approximately 600 feet southeast of the project site, viewing southeast.



b) Existing residences on Civic Center Drive, approximately 400 feet west of the project site, viewing south.

Figure 14

Nearby Land Uses

Source: Douglas Herring & Associates

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a “Potentially Significant Impact” as indicated by the checklist on the following pages.

- | | | |
|--|--|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agricultural Resources | <input checked="" type="checkbox"/> Air Quality |
| <input checked="" type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Cultural Resources | <input checked="" type="checkbox"/> Geology/Soils |
| <input type="checkbox"/> Greenhouse Gas Emissions | <input checked="" type="checkbox"/> Hazards & Haz. Materials | <input checked="" type="checkbox"/> Hydrology/Water Quality |
| <input type="checkbox"/> Land Use/Planning | <input type="checkbox"/> Mineral Resources | <input checked="" type="checkbox"/> Noise |
| <input type="checkbox"/> Population/Housing | <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation |
| <input type="checkbox"/> Transportation/Traffic | <input type="checkbox"/> Utilities/Service Systems | |
| <input checked="" type="checkbox"/> Mandatory Findings of Significance | | |

DETERMINATION:

On the basis of the initial evaluation:

- ☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ☐ I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on the attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature

Date

Printed name

For

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

EVALUATION OF ENVIRONMENTAL IMPACTS:

I. AESTHETICS — *Would the project:*

- a) *Have a substantial adverse effect on a scenic vista?* ☐ ☐ ☐ ☒

Explanation: There are no scenic vistas in the vicinity of the project site, which is located in a mixed-use urban neighborhood at the edge of an extensive area of light industrial development. The Santa Cruz Mountains are visible in the distance from the De La Cruz Boulevard/El Camino Real ramp adjacent to the site, but they represent a tiny portion of the overall viewshed from this location, which is dominated by urban development and the six-lane highway of El Camino Real. Although a park is located south of the project site, this would not be widely considered a scenic vista. In any event, the proposed project would have no effect on views of the park; there are no visual receptors that would be blocked by the proposed project.

Views from the site itself are not scenic by any measure. Views of the site consist of stored vehicles and roll-off containers and two large warehouses. Views toward offsite locations are quite constrained by the development on the site, the embankment above the southern edge of the site, and existing trees growing along the site's southern and northern perimeters. Where offsite views are available, they consist of nearby light industrial buildings, the fenced Caltrain tracks and right-of-way, and the residential alcohol rehabilitation facility located opposite the site frontage (see Figure 5A). Based on the foregoing considerations, the project would have no impact on a scenic vista.

- b) *Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?* ☐ ☐ ☐ ☒

Explanation: There are no State-designated scenic highways in the vicinity of the project site.¹ Furthermore, as described in Section I(a), above, there are no scenic resources on the project site. Therefore, the project would have no effect on scenic resources.

- c) *Substantially degrade the existing visual character or quality of the site and its surroundings?* ☐ ☐ ☐ ☒

Explanation: The existing visual quality of the project site is generally low, dominated by two large warehouses and a variety of many stored vehicles and storage containers. There is just a single tree on the site, a black walnut in poor condition, and the only other natural element on the site is ruderal weeds and grasses growing among the parked vehicles. The appearance of the site is improved by some landscape vegetation growing on either side of the site entrance

¹ California Department of Transportation, Officially Designated State Scenic Highways, accessed July 20, 2015 at: <http://www.dot.ca.gov/hq/LandArch/scenic/schwy.htm>.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

and by mature trees that grow outside the site but adjacent to the southern and northern boundaries of the site.

The proposed project would redevelop the site with attractively designed townhomes, with landscape trees planted throughout the site. The proposed townhomes would have an architectural style representing a fusion of Monterey and Spanish Mission styles, featuring plain tan stucco walls, articulated façades, and low-pitched gabled roofs covered in curved reddish-brown concrete tiles.

The massing of the buildings would be articulated on the front elevations by projecting bays extending from the first through the second stories. On the rear elevations, massing articulation would come from a recessed ground floor, creating an overhang of the second and third stories. The projecting bays at the front would enclose a covered entry porch at the ground floor and a covered balcony on the second floor, enclosed by a decorative metal railing. Additional design articulation would be provided by divided-light windows with decorative wood shutters and wood corbels, iron metal ornamentation, and projecting wood outriggers at the roof gables. Streetscape renderings of how the project would appear from Alviso Street and El Camino Real are shown on Figures 5 and 6, respectively.

The proposed buildings would improve substantially on the character of the built environment, and the proposed landscaping would add more than three dozen ornamental trees to the site, along with other plantings. On the whole, the proposed project would substantially improve upon the existing visual character of the site, and would have no impact due to a degradation of the existing visual quality of the site.

- d) *Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?*

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	-------------------------------------	--------------------------

Explanation: The proposed project would not result in the introduction of a substantial source of new glare. The proposed buildings would not be covered in reflective surfaces and the amount of fenestration would be modest and in line with common residential developments. While parked cars can provide new sources of daytime glare on sunny days, all of the townhomes would have enclosed two-car garages. There would be no significant concentration of parked cars anywhere on the site; the eight proposed guest parking spaces would be located in the far southeast corner of the site, which is substantially screened by the adjacent elevated De La Cruz Boulevard/El Camino Real ramp and numerous trees growing adjacent to this area of the site. Parked cars at this location would not be a substantial source of glare, and in any event there are no offsite visual receptors with a view of this area. The introduction of numerous trees throughout the site would further limit any emanation of glare from the site. Given the minimal amounts of glare that could be created by the project and the lack of offsite sensitive visual receptors, the project would have a negligible glare effect on offsite properties.

The project would introduce new nighttime light sources from street lights and from interior and exterior lighting of the proposed townhomes. However, nighttime lighting of this nature is contained by window coverings, fixture shades, and intervening building surfaces, and does not create nighttime glare. This type of lighting is also an inherent and widely accepted aspect

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

of any type of occupied human development. Furthermore, there are no offsite sensitive visual receptors with direct views of the site.

The Santa Clara General Plan EIR noted that most new development and redevelopment under the 2010-2035 General Plan would be required to go through the City's Architectural Committee, which would review projects' consistency with the City's Community Design Guidelines. The EIR determined that new sources of light and glare would be reduced and managed consistent with adopted City regulations and policies, in combination with State regulations, and concluded that implementation of the General Plan would therefore have a less-than-significant nighttime lighting and glare impact. The proposed project would be consistent with the development of the site envisioned in the General Plan, and would require architectural review and approval by the City's Architectural Committee. The project's light and glare impacts would therefore be *less than significant*.

II. AGRICULTURAL RESOURCES — *In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the State's inventory of forest land, including the Forest and Range Assessment Project and the Forestry Legacy Assessment Project, and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:*

- a) *Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?*

☐ ☐ ☐ ☒

Explanation: The project site and all surrounding lands are designated "Urban and Built-Up Land" on the maps prepared pursuant to the Farmland Mapping and Monitoring Program (FMMP) by the Department of Conservation (DOC), a department of the California Resources Agency.² The DOC updates the maps every two years; the most recent map was prepared in 2012 and published in 2014. Since the project site does not contain any Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, there is no potential for conversion of these types of farmlands.

² California Department of Conservation, Division of Land Resource Protection, Farmland Mapping and Monitoring Program, "Santa Clara County Important Farmland 2012" (map), August 2014.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- b) *Conflict with existing zoning for agricultural use, or a Williamson Act contract?*

☐ ☐ ☐ ☒

Explanation: The project property is not zoned for agricultural use or under a Williamson Act contract.

- c) *Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined in Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?*

☐ ☐ ☐ ☒

Explanation: The project site is not zoned as forest land and although a line of mature trees lining the easement adjacent to the site's southern boundary provides screening, and additional trees grow adjacent to the site's northeastern boundary, there is no forest land on the site. The proposed project would therefore have no impact on forest or timber land.

- d) *Result in the loss of forest land or conversion of forest land to a non-forest use?*

☐ ☐ ☐ ☒

Explanation: Public Resources Code Section 12220(g) defines forest land as land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits. There is no forest land on the project site as defined in Public Resources Code Section 12220(g).

- e) *Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?*

☐ ☐ ☐ ☒

Explanation: The project site does not contain farmland or forest land, and implementation of the proposed project would therefore have no potential to convert such lands to other uses.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

III. AIR QUALITY — Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

- a) Conflict with or obstruct implementation of the applicable air quality plan? ☐ ☐ ☒ ☐

Explanation: The Bay Area Air Quality Management District (BAAQMD) adopted its 2010 Bay Area Clean Air Plan (CAP) in accordance with the requirements of the California Clean Air Act (CCAA) to implement all feasible measures to reduce ozone; provide a control strategy to reduce ozone, particulate matter, air toxics, and greenhouse gas (GHG) emissions in a single, integrated plan; and establish emission control measures to be adopted or implemented in the 2010 through 2012 timeframe.³ The primary goals of the 2010 Bay Area CAP are to:

- Attain air quality standards;
- Reduce population exposure and protect public health in the Bay Area; and
- Reduce GHG emissions and protect the climate.

When a public agency contemplates approving a project where an air quality plan consistency determination is required, BAAQMD recommends that the agency analyze the project with respect to the following questions: (1) Does the project support the primary goals of the air quality plan; (2) Does the project include applicable control measures from the air quality plan; and (3) Does the project disrupt or hinder implementation of any 2010 CAP control measures? If the first two questions are concluded in the affirmative and the third question concluded in the negative, the BAAQMD considers the project consistent with air quality plans prepared for the Bay Area.

Any project that would not support the 2010 CAP goals would not be considered consistent with the 2010 CAP. The recommended measure for determining project support of these goals is consistency with BAAQMD CEQA thresholds of significance. As presented in the subsequent impact discussions, the proposed project with mitigations would not exceed the BAAQMD significance thresholds; therefore, the proposed project with mitigations would support the primary goals of the 2010 CAP. As mentioned, projects that incorporate all feasible control measures in the air quality plan are considered consistent with the 2010 CAP.

The proposed project with mitigation measures incorporated would support the primary goals of the 2010 CAP and would be consistent with all applicable 2010 CAP control measures, and would not disrupt or hinder implementation of any 2010 CAP control measures. Therefore, there would be a *less-than-significant impact* associated with, conflicting with, or obstructing implementation of the applicable air quality plan. The air quality setting and regulatory context are described in Appendix AQ-1.

³ In 2015, the BAAQMD initiated an update to the 2010 CAP. On February 28, 2014, the District held a public meeting to report progress on implementing the control measures in the 2010 CAP, to solicit ideas and strategies to further reduce ozone precursors, particulate matter, toxic air contaminants, and greenhouse gases, and to seek input on innovative strategies to reduce greenhouse gases, mechanisms for tracking progress in reducing GHGs, and how the District may further support actions to reduce GHGs. The culmination of this effort will be an updated CAP.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

b) *Violate any air quality standard or contribute substantially to an existing or projected air quality violation?*

☐ ☒ ☐ ☐

Explanation:

Construction Emissions

The proposed development of 40 residential units (approximately 74,000 square feet of floor surface area) would be constructed in a single phase estimated to require approximately 24 months. Construction activities are expected to commence in 2016 with demolition of the existing structures. Grading and site improvements would occur during the first quarter of 2016 and building construction would occur through the remaining portion of 2016 until the last quarter of 2017. Construction activities would be completed following paving and architectural coating in the last quarter of 2017.

The proposed project would generate short-term emissions of air pollutants, including fugitive dust and equipment exhaust emissions. The BAAQMD *CEQA Air Quality Guidelines* recommend quantification of construction-related exhaust emissions and comparison of those emissions to significance thresholds. The CalEEMod (California Emissions Estimator Model, Version 2013.2.2) was used to quantify construction-related pollutant emissions. Supporting information for the emissions calculations is provided in Appendix AQ-2.

Analyzed air quality pollutants included: carbon monoxide (CO), reactive organic compounds (ROG), nitrogen oxides (NO_x), sulfur dioxide (SO₂), particulate matter equal to or less than 10 micrometers (coarse particulates or PM₁₀), and particulate matter equal to or less than 2.5 micrometers (fine particulates or PM_{2.5}). The emissions generated from construction activities would include:

- Dust (including PM₁₀ and PM_{2.5}) primarily from “fugitive” sources (i.e., emissions released through means other than through a stack or tailpipe) such as material handling and travel on unpaved surfaces; and
- Combustion emissions of criteria air pollutants (ROG, NO_x, CO, PM₁₀, and PM_{2.5}) primarily from operation of heavy off-road equipment, haul trucks, (primarily diesel-operated), and worker automobile trips (primarily gasoline-operated).

Construction-related fugitive dust emissions would vary from day to day, depending on the level and type of activity, silt content of the soil, and the weather. High winds (greater than 10 miles per hour) occur infrequently in the area, less than 2 percent of the time. In the absence of mitigation, construction activities could result in significant quantities of dust, and as a result, local visibility and PM₁₀ concentrations could be adversely affected on a temporary and intermittent basis during construction. In addition, the fugitive dust generated by construction would include not only PM₁₀, but also larger particles, which would fall out of the atmosphere within several hundred feet of the site and could result in nuisance-type impacts.

Erosion control measures and water programs are typically undertaken to minimize these fugitive dust and particulate emissions. A dust control efficiency of over 50 percent due to daily watering and other measures (e.g., limiting vehicle speed to 15 mph, management of stockpiles,

screening process controls, etc.) was estimated. Based on CalEEMod, one water application per day reduces fugitive dust by 34 percent, two water applications per day reduces fugitive dust by 55 percent, and three water applications per day reduces fugitive dust by 61 percent.

The project's construction emissions were estimated using CalEEMod. Table AQ-1 provides the resulting estimated short-term construction emissions that would be associated with the proposed project and compares those emissions to the BAAQMD's significance thresholds for construction exhaust emissions. As the construction phases (i.e., grading, building construction, paving, etc.) are sequential, the average daily construction-period emissions (i.e., total construction-period emissions divided by the number of construction days) were compared to the BAAQMD significance thresholds. As shown in the table, all construction-related emissions would be below the BAAQMD significance thresholds.

However, the BAAQMD's *CEQA Air Quality Guidelines* consider these impacts to be less than significant only if best management practices are employed to reduce these emissions. Therefore, Mitigation Measures AQ-1 through AQ-3 require the implementation of best management practices to reduce fugitive dust, fugitive volatile organic compounds (VOCs), and combustion exhaust emissions, in accordance with BAAQMD's *CEQA Air Quality Guidelines* and applicable regulations.

Table AQ-1
Estimated Average Daily Construction Emissions (pounds per day)

Condition	ROG	NO _x	PM ₁₀	PM _{2.5}	CO
	Unmitigated				
Construction	16.1	49.2	3.1	2.9	37.8
Significance Threshold	54	54	82	54	---
Significant (Yes or No)?	No	No	No	No	No
	Mitigated				
Construction	11.2	41.4	0.8	0.8	35.1
Significance Threshold	54	54	82	54	---
Significant (Yes or No)?	No	No	No	No	No

Source: CalEEMod Version 2013.2.2.

Although the project is not predicted to exceed significance thresholds, absent implementation of the BAAQMD's Basic Construction Mitigation Measures, the project's effects of construction-generated criteria pollutants would be a *potentially significant impact*, based on the criteria discussed above. Implementation of the controls listed in Mitigation Measures AQ-1 through AQ-3, which incorporate the Basic Construction Mitigation Measures, would reduce the project's construction-related air quality impacts to a less-than-significant level.

Mitigation Measure AQ-1: BAAQMD Required Dust Control Measures: The contractor shall reduce construction-related air pollutant emissions by implementing BAAQMD's basic fugitive dust control measures, including:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered at least two times per day.
- All haul trucks transporting soil, sand, or other loose material off site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 miles per hour.
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- The project sponsor shall retain the services of an independent dust, noise, and general complaint company to receive citizen complaints during project construction and track their resolution. A publicly visible sign shall be posted at the project site perimeter with the telephone number of the complaint company. The Air District's phone number shall also be visible on this notice to ensure compliance with applicable regulations. The project sponsor or construction contractor shall respond to any complaints received during construction and take appropriate corrective action within 48 hours of receiving the complaint.

Mitigation Measure AQ-2: BAAQMD Required Basic Exhaust Emissions Reduction Measures: The contractor shall implement the following measures during excavation to reduce construction-related exhaust emissions:

- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure, Title 13, Section 2485 of California Code of Regulations). Clear signage shall be provided for workers at all access points.
- All off-road equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.

Mitigation Measure AQ-3: BAAQMD Regulation 8, Rule 3 for Architectural Coatings: Emissions of volatile organic compounds (VOCs) due to the use of architectural coatings are regulated by the limits contained in Regulation 8: Organic Compounds, Rule 3: Architectural Coatings (Rule 8-3). Rule 8-3 was revised on January 1, 2011 to include more stringent VOC limit requirements. The revised VOC architectural coating limits specify that the use paints and

solvents with a VOC content of 100 grams per liter or less for interior and 150 grams per liter or less for exterior surfaces shall be required.

Operational Emissions

The CalEEMod was used to estimate emissions that would be associated with motor vehicle use, space and water heating, and landscape maintenance emissions expected to occur after the proposed project construction is complete and operational. The proposed project land use types and size and other project-specific information were input to the model. Unless otherwise noted, the CalEEMod model defaults for Santa Clara County were used. CalEEMod provides emissions for transportation, areas sources,⁴ electricity consumption, natural gas combustion, electricity usage associated with water usage and wastewater discharge, and solid waste land filling and transport. CalEEMod output worksheets are included in Appendix AQ-2.

The proposed project land uses were input into CalEEMod, which included 40 townhouse units with individual garages (as Condo/Townhouse) and eight guest parking spaces on a 2.1-acre site. The trip rate used in the air quality analysis was assumed to be 5.81 daily trips per residential unit (or 232 daily trips).⁵ No fireplaces are proposed for installation in the townhomes, which was factored into the analysis.⁶

Estimated daily and annual operational emissions that would be associated with the proposed project are presented in Tables AQ-2 and AQ-3, respectively, and are compared to BAAQMD's thresholds of significance. As indicated in Tables AQ-2 and AQ-3, the estimated proposed project operational emissions would be below the BAAQMD's significance thresholds. Operational emissions from the project would therefore have a *less-than-significant impact* on air quality.

Table AQ-2
Estimated Daily Project Operational Emissions (pounds per day)

Condition	ROG	NO _x	PM ₁₀	PM _{2.5}	CO
Area	2.2	<0.1	<0.1	<0.1	3.3
Energy	<0.1	0.2	<0.1	<0.1	0.1
Mobile	0.7	1.4	<0.1	<0.1	6.7
Total Project	2.9	1.6	0.1	0.1	10.1
Significance Threshold	54	54	82	54	---
Significant (Yes or No)?	No	No	No	No	No

Source: CalEEMod Version 2013.2.2.

⁴ Operational emissions associated with natural gas or propane fireplaces, consumer products (various solvents used in non-industrial applications, which typically include cleaning supplies, kitchen aerosols, and toiletries), architectural coatings, and landscaping equipment.

⁵ Institute of Transportation Engineers, *Trip Generation*, 9th Edition, 2012.

⁶ On July 9, 2008, the BAAQMD adopted Regulation 6, Rule 3: Wood-Burning Devices, to reduce the harmful emissions that come from wood smoke. The Rule requires cleaner-burning (e.g., natural gas) USEPA-certified stoves and inserts in new housing construction.

Table AQ-3
Estimated Annual Project Operational Emissions (tons per year)

Condition	ROG	NO _x	PM ₁₀	PM _{2.5}	CO
Area	0.38	<0.01	<0.01	<0.01	0.30
Energy	<0.01	0.03	<0.01	<0.01	0.02
Mobile	0.13	0.25	<0.01	<0.01	1.17
Total Project	0.52	0.28	0.01	0.01	1.49
Significance Threshold	10	10	15	10	---
Significant (Yes or No)?	No	No	No	No	No

Source: CalEEMod Version 2013.2.2.

- c) *Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?*

☐ ☐ ☒ ☐

Explanation: As noted in BAAQMD's *CEQA Air Quality Guidelines*, air pollution is, by its very nature, largely a cumulative impact. It would be unusual for a single project to be sufficient in size, by itself, to result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. The BAAQMD *CEQA Air Quality Guidelines* recommend that cumulative air quality effects from criteria air pollutants be addressed by comparison to the project-specific mass daily and annual thresholds. These thresholds were developed to identify a cumulatively considerable contribution to a significant regional air quality impact.

As discussed in the preceding subsection, the project would have a less-than-significant impact on air quality. Therefore, the project would also have a *less-than-significant cumulative impact* on air quality.

- d) *Expose sensitive receptors to substantial pollutant concentrations?*

☐ ☒ ☐ ☐

Explanation: Health risk from exposure to air pollutants is evaluated based on the potential for exposure to PM_{2.5} and toxic air contaminants (TACs), the two emission types that pose the most significant threat to human health. According to BAAQMD, more than 80 percent of the

inhalation cancer risk from TACs in the Bay Area is from diesel engine emissions.⁷ TACs are a set of airborne pollutants that may pose a present or potential hazard to human health, and are separated into carcinogens and non-carcinogens. State and local regulatory programs are intended to limit exposure to TACs and the associated health risk. Both TACs and PM_{2.5} are emitted by trucks, cars, construction equipment, and other mobile sources. They are also emitted by stationary sources that require permitting by the BAAQMD, which requires source controls.

Project impacts related to increased health risk can occur either by introducing a new sensitive receptor, such as a residential use, in proximity to an existing source of TACs or by introducing a new source of TACs with the potential to adversely affect existing sensitive receptors in the project vicinity. The BAAQMD recommends using a 1,000-foot radius around a project site for purposes of identifying community health risk from siting a new sensitive receptor or a new source of TACs. A lead agency should enlarge the radius if an unusually large source or sources of hazardous emissions that might affect a project lies outside the 1,000-foot radius.

Cumulative Health Impact Methodology

According to BAAQMD's *CEQA Air Quality Guidelines* and *Air Toxics New Source Review Program Health Risk Screening Analysis Guidelines*⁸, health effects from carcinogenic air toxics are usually described in terms of individual cancer risk. "Individual Cancer Risk" is the likelihood that a person exposed to concentrations of TACs over a 70-year lifetime will contract cancer, based on the use of standard risk-assessment methodology. The Maximally Exposed Individual (MEI) represents the worst-case risk estimate, based on a theoretical person continuously exposed for 70 years at the point of highest compound concentration in the air. This is a highly conservative assumption, since most people do not remain at home all day and on average residents change residences every 11 to 12 years. In addition, this assumption assumes that residents are experiencing outdoor concentrations for the entire exposure period. The BAAQMD has established the CEQA significance threshold for individuals exposed to TAC sources as the increased incremental cancer risk of 10 in one million or greater.

A Health Risk Assessment (HRA) was performed for the project to analyze the potential incremental cancer risks to sensitive receptors in the vicinity of the proposed project, using CalEEMod and emission rates from the EMFAC2011 and OFFROAD2011 emission models produced by the California Air Resources Board (CARB). Emission factors were input into the U.S. Environmental Protection Agency (USEPA) AERMOD (Version 14134)⁹ atmospheric dispersion model to calculate ambient air concentrations at receptors in the project vicinity. This assessment is intended to provide a worst-case estimate of the increased exposure by employing a standard emission estimation program, an accepted pollutant dispersion model, approved toxicity factors, and exposure parameters.

These conservative health risk methodologies were used in this HRA in order to estimate maximum potential health risks. These methodologies overestimate both non-carcinogenic and carcinogenic health risk, possibly by an order of magnitude or more. Therefore, for carcinogenic risks, the actual probabilities of cancer formation in the populations of concern due to exposure to carcinogenic pollutants are likely to be much lower than the risks derived using the risk

⁷ Bay Area Air Quality Management District (BAAQMD), *California Environmental Quality Act Air Quality Guidelines*, pages 5-3, May 2011.

⁸ Bay Area Air Quality Management District, *Air Toxics New Source Review Program Health Risk Screening Analysis Guidelines*, January 2010.
http://www.baaqmd.gov/~media/Files/Engineering/Air%20Toxics%20Programs/hrsa_guidelines.ashx.

⁹ US Environmental Protection Agency, AERMOD Modeling System, http://www.epa.gov/scram001/dispersion_prefrec.htm.

assessment methodology. The extrapolation of toxicity data in animals to humans, the estimation of concentration prediction methods within dispersion models, and the variability in lifestyles, fitness, and other confounding factors of the human population also contribute to the overestimation of health impacts. Therefore, the results of the HRA are highly overstated.

In accordance with California Office of Environmental Health Hazard Assessment (OEHHA) guidelines,¹⁰ the HRA was accomplished by applying the highest estimated concentrations of TACs at the receptors analyzed to the established cancer potency factors and acceptable reference concentrations for non-cancer health effects. Appendix AQ-3 provides additional information on the methodology used for the HRA. The locations of the sensitive receptors factored in to the HRA are shown on Figure AQ-1.

The BAAQMD's *CEQA Air Quality Guidelines* also include standards and methods for determining the significance of cumulative health risk impacts. The method for determining cumulative health risk requires the tallying of health risk from permitted stationary sources, major roadways, and any other identified substantial TAC sources in the vicinity of a project site (i.e., within a 1,000-foot radius) and then adding the individual sources to determine whether the BAAQMD's cumulative health risk thresholds are exceeded. Results are summarized for the maximally exposed individual receptor.

The BAAQMD has developed a geo-referenced database of permitted stationary emissions sources throughout the San Francisco Bay Area, along with the *Stationary Source Risk & Hazard Analysis Tool* (May 2012) for estimating cumulative health risks from the permitted sources. Nine permitted sources are located within approximately 1,000 feet of the project site. Caltrain and other rail operations are also located within 1,000 feet to the east.

BAAQMD has also developed a geo-referenced database of major roadways in the Bay Area and the *Highway Screening Analysis Tool* (May 2011) for estimating cumulative health risks from such roadways. The proposed residences are within 100 feet of State Route 82 and existing residences are within 250 feet of State Route 82. BAAQMD *CEQA Air Quality Guidelines* also require the inclusion of surface streets within 1,000 feet of the project with annual average daily traffic (AADT) of 10,000 or greater¹¹. Upon review of nearby roadways, two roadways meet these criteria: Lafayette Street and De La Cruz Boulevard. The maximally exposed individual proposed residences would be within 530 feet of Lafayette Street and within 200 feet of De La Cruz Boulevard. The maximally exposed individual existing residences are within 375 feet of Lafayette Street and 640 feet of De La Cruz Boulevard.

Incremental Cancer Risk Impacts on Existing Residents

Cancer risk is the lifetime probability of developing cancer from exposure to carcinogenic substances. Following HRA guidelines established by OEHHA and the BAAQMD in *Recommended Methods for Screening and Modeling Local Risks and Hazards*, incremental cancer risks were calculated by applying established toxicity factors to modeled concentrations.¹²

The following describes the health risk assessment associated with existing receptors as a result of project construction activities and existing cumulative sources. As shown in Table AQ-4, the

¹⁰ California Office of Environmental Health Hazard Assessment, *Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessment*, August 2003. http://oehha.ca.gov/air/hot_spots/pdf/HRAguidefinal.pdf.

¹¹ Bay Area Air Quality Management District, BAAQMD County Surface Street Screening Tables, May 2011 and CEHTP Traffic Linkage Service Demonstration, http://www.ehib.org/traffic_tool.jsp.

¹² Bay Area Air Quality Management District, *Recommended Methods for Screening and Modeling Local Risks and Hazards*, May 2012. <http://www.baaqmd.gov/~media/Files/Planning%20and%20Research/CEQA/Risk%20Modeling%20Approach%20May%202012.ashx?la=en>.

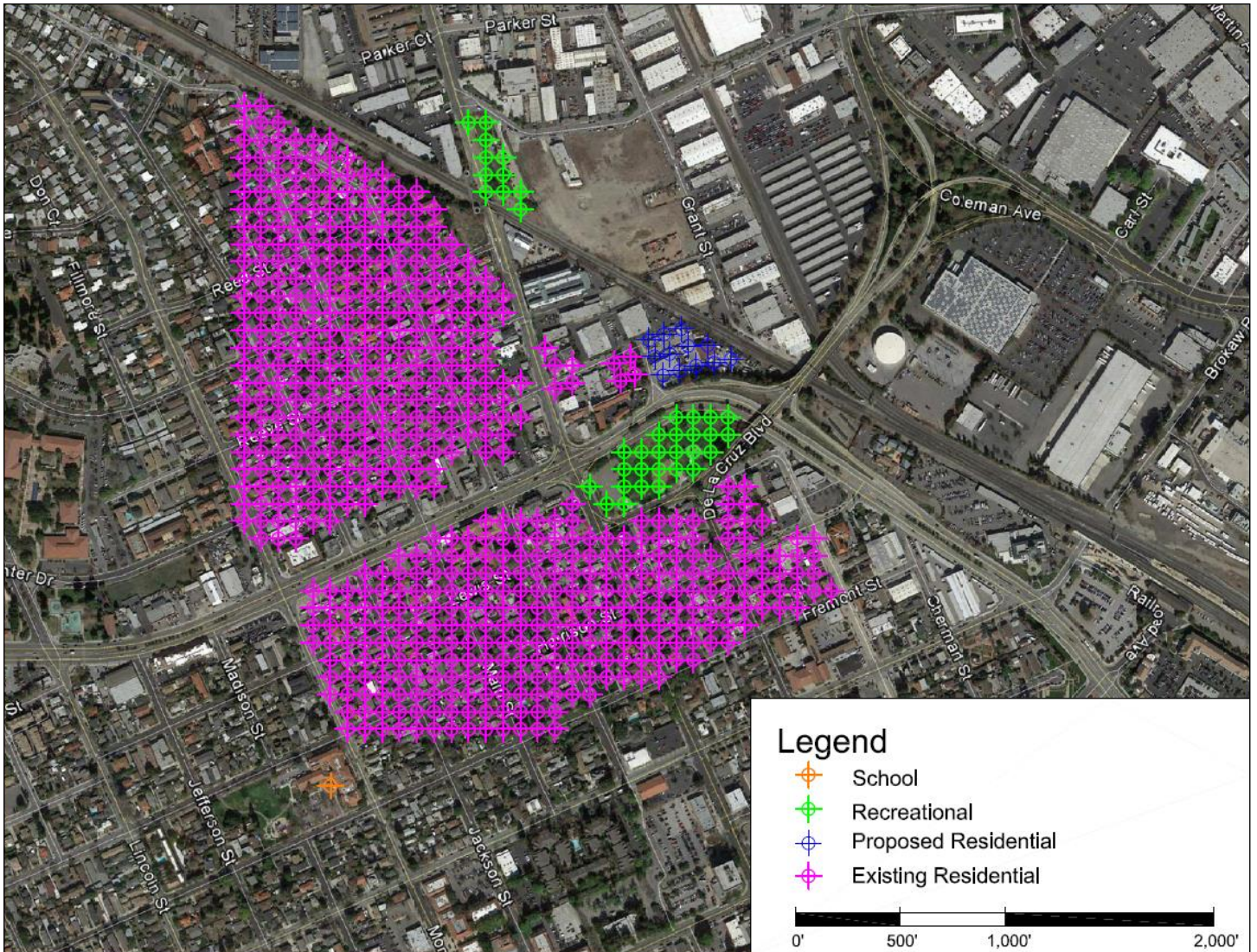


Figure AQ-1

Health Risk Assessment Receptors

Source: RCH Group

health risk screening determined that with implementation of required BAAQMD mitigation measures for construction activity and equipment identified previously (Mitigation Measures AQ-1 through AQ-3), the maximum cancer risk from construction DPM for an existing residential adult receptor would be 3.5 cancers per million persons and for a residential child receptor the incremental risk would be 40.0 cancers per million persons. Thus, the cancer risk due to construction activities would potentially exceed the BAAQMD threshold of 10 per million and would be a *potentially significant impact*. Implementation of the following enhanced mitigation would reduce this impact to a less-than-significant level:

Mitigation Measure AQ-4: Implement Enhanced Exhaust Emissions Reduction Measures: The construction contractor shall implement the following measures during construction to further reduce construction-related exhaust emissions:

All off-road equipment greater than 25 horsepower (hp) and operating for more than 20 total hours over the entire duration of construction activities shall meet the following requirements:

- Where access to alternative sources of power are available, portable diesel engines shall be prohibited; and
- All off-road equipment shall have:
 - a) Engines that meet or exceed either USEPA or CARB Tier 2 off-road emission standards, and
 - b) Engines that are retrofitted with a CARB Level 3 Verified Diesel Emissions Control Strategy (VDECS). Acceptable options for reducing emissions include the use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, add-on devices such as particulate filters, and/or other options as such are available.

Table AQ-5 reflects the reduction in cancer risk that would result from implementation of Mitigation Measure AQ-4. The maximum cancer risk from construction for a residential adult receptor would be reduced to about 0.3 cancers per million and the risk for a residential child receptor would be reduced to about 3.3 cancers per million. The maximum cancer risk from construction DPM for a school child would be 0.02 cancers per million. Thus, the cancer risk due to construction activities would be below the BAAQMD significance threshold of 10 per million and would be less than significant with mitigation incorporated.

Cumulative Cancer Risk Impacts on Existing Residents

The analysis of cumulative cancer risk included the risk from the nearby major streets, Caltrain/UPRR operations, and the existing permitted sources identified by BAAQMD's Highway Screening Analysis Tool. The results are presented in Table AQ-4, which lists all of the permitted sources identified by BAAQMD. The estimated cancer risk at the nearest existing residence due to exposure to traffic on State Route 82 is 4.10 per million. From exposure of the maximally exposed individual to traffic on Lafayette Street and De La Cruz Boulevard, the estimated cancer risks are 1.22 and 0.69 per million, respectively. The estimated cancer risk from proximity to Caltrain is 12.4 per million. The estimated cancer risk at the maximally exposed individual existing residence due to nearby permitted sources is 22.8 cancers per million. When all of these risks are combined, the cumulative cancer risk from the construction activities and

Table AQ-4
Estimated Health Impacts for Existing Receptors
With Required BAAQMD Mitigation Measures

Source	Cancer Risk ^a	Hazard Impact ^b	PM _{2.5} Concentration (µg/m ³)
	Proposed Project		
Proposed Project	3.53/40.0	0.30/0.05	0.25
Significance Threshold	10	1.0	0.3
Significant (Yes or No)?	Yes	No	No
	Cumulative		
Works Auto Body (#5825)	-	-	-
SRS Gilbert Industrial Coatings Inc. (#11700) ^c	4.39	0.15	0.01
Victory Automotive Service (#15236)	-	-	-
Silveria Cabinets (#16772)	-	-	-
Santa Clara Plating Company (#3280)	0.01	-	-
Western Forge and Flange Company (#296)	No longer operating at site.		
Custom Paint Finish (#9892)	-	<0.01	-
Western Casting Company (#222) ^c	No longer operating at site.		
Caltrain ^d	12.4	0.04	0.16
State Route 82 ^e	4.10	0.01	0.04
Lafayette Street	1.22	-	0.05
De La Cruz Boulevard	0.69	-	0.02
Proposed Project	3.53/40.0	0.30/0.05	0.25
Cumulative Impact	26.3/62.8	0.50/0.25	0.53
Significance Threshold	100	10	0.8
Significant (Yes or No)?	No	No	No

Notes:

^a Cancer risk reported as additional cancers per million persons, for adult and child, respectively.

^b Hazard impact reported as Hazard Index (HI) for acute hazard and chronic hazard, respectively.

^c Cancer Risk, Hazard Impact, and PM_{2.5} Concentration values for the paint booth and diesel compressor were determined with the use of the AERMOD dispersion modeling to estimate maximum downwind concentrations and potential health risk at sensitive receptors.

^d Caltrain Cancer Risk, Hazard Impact, and PM_{2.5} Concentration values based on the assumption of the number of diesel locomotives passing by on a weekly basis. The AERMOD dispersion model was used to estimate maximum downwind concentrations and potential health risk at sensitive receptors from the rail line source.

^e State Route 82 Cancer Risk, Hazard Impact, and PM_{2.5} Concentration values for State Route 82 are based on 6-foot height estimates provided by the BAAQMD developed geo-referenced database of permitted and Highway TAC emissions.

Table AQ-5
Estimated Health Impacts for Existing Residential Receptors
With Required and Enhanced BAAQMD Mitigation Measures

Source	Cancer Risk ^a	Hazard Impact ^a	PM _{2.5} Concentration (µg/m ³)
	Proposed Project		
Proposed Project	0.29/3.27	0.02/0.01	0.02
Significance Threshold	10	1.0	0.3
Significant (Yes or No)?	No	No	No
	Cumulative		
Works Auto Body (#5825)	-	-	-
SRS Gilbert Industrial Coatings Inc. (#11700) ^c	4.39	0.15	0.01
Victory Automotive Service (#15236)	-	-	-
Silveria Cabinets (#16772)	-	-	-
Santa Clara Plating Company (#3280)	0.01	-	-
Western Forge and Flange Company (#296)	No longer operating at site.		
Custom Paint Finish (#9892)	-	<0.01	-
Western Casting Company (#222) ^c	No longer operating at site.		
Caltrain ^d	12.4	0.04	0.16
State Route 82 ^e	4.10	0.01	0.04
Lafayette Street	1.22	-	0.05
De La Cruz Boulevard	0.69	-	0.02
Unmitigated Proposed Project	0.29/3.27	0.02/0.01	0.02
Cumulative Impact	23.1/26.1	0.22/0.21	0.30
Significance Threshold	100	10	0.8
Significant (Yes or No)?	No	No	No

Notes:

^a Cancer risk reported as additional cancers per million persons, for adult and child, respectively.

^b Hazard impact reported as Hazard Index (HI) for acute hazard and chronic hazard, respectively.

^c Cancer Risk, Hazard Impact, and PM_{2.5} Concentration values for the paint booth and diesel compressor were determined with the use of the AERMOD dispersion modeling to estimate maximum downwind concentrations and potential health risk at sensitive receptors.

^d Caltrain Cancer Risk, Hazard Impact, and PM_{2.5} Concentration values based on the assumption of the number of diesel locomotives passing by on a weekly basis. The AERMOD dispersion model was used to estimate maximum downwind concentrations and potential health risk at sensitive receptors from the rail line source.

^e State Route 82 Cancer Risk, Hazard Impact, and PM_{2.5} Concentration values for State Route 82 are based on 6-foot height estimates provided by the BAAQMD developed geo-referenced database of permitted and Highway TAC emissions.

other nearby sources is 62.8 per million, below the BAAQMD significance threshold of 100 per million. The cumulative cancer risk due to construction activities would therefore be a *less-than-significant impact*. As shown in Table AQ-5, the mitigation required for the non-cumulative cancer risk from construction activities would also further reduce the cumulative cancer risk.

Non-Cancer Health Hazard

Potential non-cancer health effects due to chronic exposure to DPM were also evaluated in the HRA. Both acute (short-term) and chronic (long-term) adverse health impacts unrelated to cancer were measured against a hazard index (HI), which is defined as the ratio of a project's incremental DPM exposure concentration to a published reference exposure level (REL), as determined by OEHHA. To compute the total HI, individual ratios or Hazard Quotients (HQs) of each individual air toxic are added to produce an overall HI. If the overall HI is greater than 1.0, then the impact is considered to be significant.

The chronic reference exposure level for DPM as determined by OEHHA is $5 \mu\text{g}/\text{m}^3$. There is no acute REL for DPM. However, diesel exhaust does contain acrolein and other compounds, which do have an acute REL. Based on BAAQMD's DPM speciation data, acrolein emissions are approximately 1.3 percent of the total DPM emissions. The acute REL for acrolein as determined by OEHHA is $2.5 \mu\text{g}/\text{m}^3$.¹³ Appendix AQ-3 provides additional information on the methodology used for the HRA.

As shown in Tables AQ-4 and AQ-5, the modeling determined that the chronic HI would be 0.05 and 0.01 with basic and enhanced BAAQMD mitigation measures, respectively. Thus, the chronic HI would be well below the BAAQMD significance threshold of 1 and the proposed project would therefore have a *less-than-significant adverse chronic health impact*. The cumulative chronic health impacts would also be well below the BAAQMD threshold of 10, as shown in the tables.

As shown in Tables AQ-4 and AQ-5, the unmitigated and mitigated acute HI would be 0.30 and 0.02 with basic and enhanced BAAQMD mitigation measures, respectively. Thus, the acute HI would be below the BAAQMD significance threshold of 1 and the proposed project impact would be less than significant. The cumulative acute health impacts would also be well below the BAAQMD significance threshold of 10. The acute health impact would therefore also be a *less-than-significant impact*.

PM_{2.5} Concentration

Dispersion modeling also estimated the exposure of sensitive receptors to project-related concentrations of PM_{2.5}. The BAAQMD CEQA Air Quality Guidelines require inclusion of only PM_{2.5} exhaust emissions in this analysis; fugitive dust emissions are addressed under BAAQMD dust control measures and are required by law to be implemented during project construction. The unmitigated annual PM_{2.5} concentration from proposed project construction activities with basic BAAQMD mitigation measures would be $0.25 \mu\text{g}/\text{m}^3$, while the annual cumulative PM_{2.5} concentration would be $0.53 \mu\text{g}/\text{m}^3$, as shown in Table AQ-4. These concentrations would be below the respective BAAQMD significance thresholds of $0.3 \mu\text{g}/\text{m}^3$ and $0.8 \mu\text{g}/\text{m}^3$. The project would therefore have a *less-than-significant impact* on human health as a result of PM_{2.5} exhaust emissions during project construction. The impact would be further reduced with implementation of Mitigation Measure AQ-4, as shown in Table AQ-5.

¹³ California Office of Environmental Health Hazards Assessment, Toxicity Criteria Database, 2010. <http://www.oehha.ca.gov/tcdb/index.asp>

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Cumulative Health Impacts on Proposed Residences

The health risk assessment included an evaluation of potential health impacts on future residents of the proposed townhomes from exposure to existing cumulative sources such as permitted sources (i.e., diesel generators, gasoline stations), Caltrain and UPRR operations, and vehicle traffic on nearby roadways, including State Route 82 (El Camino Real). The BAAQMD method for determining cumulative health risk requires the tallying of health risk from permitted stationary sources, major roadways, and any other identified substantial TAC sources in the vicinity of a project site (i.e., within a 1,000-foot radius) and then adding the individual sources to determine whether the BAAQMD's cumulative health risk significance thresholds are exceeded.

The individual and cumulative cancer risks, hazard indices, and PM_{2.5} concentrations (in µg/m³) impacting the proposed project residents from BAAQMD-permitted stationary sources, major roadways within 1,000 feet of the proposed project, and Caltrain and UPRR operations (including DPM effects) are presented in Table AQ-6. The estimated cancer risk impacts at the nearest existing residence due to State Route 82 is 7.23 per million. The estimated cancer risk impacts at the maximally exposed existing receptor due to Lafayette Street and De La Cruz Boulevard is 0.74 and 2.48 per million, respectively. The estimated cancer risk impacts at the nearest existing residence due to Caltrain and UPRR operations is 36.6 per million. The cumulative cancer risk, 62.3 per million, would be below the BAAQMD cumulative significance threshold of 100 per million for proposed residential receptors. Thus, the proposed project would have a *less-than-significant health impact* on proposed receptors.

e) Create objectionable odors affecting a substantial number of people?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Explanation: Though offensive odors from stationary and mobile sources rarely cause any physical harm, they still remain unpleasant and can lead to public distress, generating citizen complaints to local governments. The occurrence and severity of odor impacts depend on the nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of receptors. Generally, odor emissions are highly dispersive, especially in areas with higher average wind speeds. However, odors disperse less quickly during inversions or during calm conditions, which hamper vertical mixing and dispersion.

The BAAQMD's significance criteria for odors are subjective and are based on the number of odor complaints generated by a project. Generally, the BAAQMD considers any project with the potential to frequently expose members of the public to objectionable odors to cause a significant impact. With respect to the proposed project, diesel-fueled construction equipment exhaust would generate some odors. However, these emissions typically dissipate quickly and would be unlikely to affect a substantial number of people.

Odor impacts could also result from siting a new sensitive receptor near an existing odor source. Examples of land uses that have the potential to generate considerable odors include, but are not limited to wastewater treatment plants; landfills; refineries; and chemical plants.

Table AQ-6
Estimated Health Impacts to Proposed Townhome Residents

Source	Cancer Risk	Hazard Impact	PM _{2.5} Concentration (µg/m ³)
Works Auto Body (#5825)	-	-	-
SRS Gilbert Industrial Coatings Inc. (#11700)	12.8	0.45	0.02
Victory Automotive Service (#15236)	-	-	-
Silveria Cabinets (#16772)	-	-	-
Santa Clara Plating Company (#3280)	0.01	-	-
Western Forge and Flange Company (#296)	No longer operating at site.		
Custom Paint Finish (#9892)	-	<0.01	-
Western Casting Company (#222) ^a	No longer operating at site.		
Costco Wholesale (#129) ^b	2.41	<0.01	-
Caltrain ^c	36.6	0.09	0.46
State Route 82 ^d	7.23	0.01	0.07
Lafayette Street	0.74	-	0.02
De La Cruz Boulevard	2.48	-	0.09
Cumulative Impact	62.3	0.57	0.66
Significance Threshold	100	10	0.8
Significant (Yes or No)?	No	No	No

Notes:

^a Cancer Risk, Hazard Impact, and PM_{2.5} Concentration values for the paint booth and diesel compressor were determined with the use of the AERMOD dispersion modeling to estimate maximum downwind concentrations and potential health risk at sensitive receptors.

^b Caltrain Cancer Risk, Hazard Impact, and PM_{2.5} Concentration values based on the assumption of the number of diesel locomotives passing by on a weekly basis. The AERMOD dispersion model was used to estimate maximum downwind concentrations and potential health risk at sensitive receptors from the rail line source.

^c State Route 82 Cancer Risk, Hazard Impact, and PM_{2.5} Concentration values for State Route 82 are based on 6-foot height estimates provided by the BAAQMD developed geo-referenced database of permitted and Highway TAC emissions.

The BAAQMD recommends odor screening distances for a variety of land uses in the BAAQMD CEQA Air Quality Guidelines. Projects that would site a new receptor farther than the applicable screening distance from an existing odor source would not likely result in a significant odor impact. The odor screening distances are not used as absolute screening criteria, but rather as information to consider along with the odor parameters and complaint history. The proposed project is not within the odor screening distances for a sewage treatment plant, refinery, chemical plant, or other odor-producing sources, which all have a screening distance

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

of 2 miles.¹⁴ Therefore, odor impacts associated with the location of the proposed project would be less than significant.

IV. BIOLOGICAL RESOURCES — Would the project:

- a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Explanation: The project site is a previously disturbed industrial property and the majority of the site is covered with impervious surfaces (i.e., buildings and pavements) and graveled bare-earth travel lanes and parking areas. Invasive weeds and sparse grasses have grown among many of the unpaved vehicle storage areas. The only other biological habitat on the site consists of introduced landscaping flanking each side of the site entrance on Alviso Street and a single black walnut tree (*Juglans nigra*) in poor condition in the southeast corner of the site. In addition, 36 other trees, predominantly mature black oaks and Coulter pines (*Pinus couteri*), are growing adjacent to the site's southern and northeastern boundaries.

The site has been fully developed with industrial/warehouse uses for many years, and is located in an area that has been developed with urban uses for decades. The ruderal weeds and grasses on the site do not constitute sensitive habitat or provide habitat to support special-status wildlife species. Aside from bird species, any wildlife that may utilize the site would be limited to rodents and other common urban animal species that may forage on the site. Such usage would be expected to be very limited due to the scarcity of vegetation for food and cover, and would be limited to species adapted to urban environments. Any wildlife that is using the site on a periodic basis would readily be able to relocate to similar urban habitat nearby.

Construction of the project would require removal of the single black oak tree present on the site. Although unlikely, due to the highly developed nature of the project area and the lack of quality foraging habitat in the project vicinity, this tree and/or the 36 other trees growing just outside the site's southern and northeastern boundaries could support nesting raptors or other bird species. If any nesting birds were present during project construction, disturbance from construction activities could adversely affect the success of the breeding birds, which would be a **potentially significant adverse impact**. Implementation of the following mitigation measure would reduce this potential impact to a less-than-significant level:

¹⁴ Bay Area Air Quality Management District, *CEQA Air Quality Guidelines*, May 2011, http://www.baaqmd.gov/~media/Files/Planning%20and%20Research/CEQA/BAAQMD%20CEQA%20Guidelines_May%202011_5_3_11.ashx

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Mitigation Measure BR-1: Tree removal and construction activity shall be scheduled to avoid the nesting season to the extent feasible. The nesting season for most birds, including most raptors, in the San Francisco Bay Area extends from February through August. If it is not possible to schedule demolition and construction activity between September and January, then preconstruction surveys for nesting birds shall be completed by a qualified ornithologist to ensure that no nests will be disturbed during project implementation. The survey shall be conducted no more than 14 days prior to the initiation of construction activities during the later part of the breeding season (May through August). During this survey, the ornithologist shall inspect all trees and other possible nesting habitats immediately adjacent to the construction area for nests. If an active nest is found sufficiently close to work areas to be disturbed by construction, the ornithologist, in consultation with the California Department of Fish and Wildlife (CGFW), shall determine the extent of a construction-free buffer zone to be established around the nest, typically 250 feet, to ensure that raptor or migratory birds will not be disturbed during project construction. The fenced buffer shall be maintained around the nest tree and the site shall be protected until September 1st or until the young have fledged. A biological monitor shall be present during earth-moving activity near the buffer zone to make sure that grading does not enter the buffer area.

No other potential impacts on special-status plant or wildlife species were identified and, with implementation of Mitigation Measure BR-1, all impacts would be less than significant.

b) *Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?*

☐ ☐ ☐ ☒

Explanation: There is no riparian habitat or other sensitive natural community present on or in proximity to the project site. There is therefore no potential for such habitats to be adversely affected by the project.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- c) *Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*

☐ ☐ ☐ ☒

Explanation: There are no wetlands or other waters subject to regulation by the U.S. Army Corps of Engineers or Regional Water Quality Control Board under Section 404 of the Clean Water Act present in the proposed development area. The proposed project would have no effect on wetlands.

- d) *Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with any established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?*

☐ ☐ ☐ ☒

Explanation: There is no suitable habitat on or in the vicinity of the project site with the potential to function as a migratory wildlife corridor.

- e) *Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?*

☐ ☒ ☐ ☐

Explanation: Chapter 12.35 of the Santa Clara City Code requires a permit from the Superintendent of Streets for the removal or alteration of any tree, plant, or shrub on public property. The proposed project would not remove or alter any of the trees growing adjacent to the site; it would remove the black walnut tree growing on the site, which is private property. Although the City does not require a permit for removal of private trees, it does regulate their removal through General Plan policies. Land Use Policy 5.3.1-P10 requires new development to provide street trees and provision of replacement trees for trees removed at a minimum 2:1 replacement ratio (i.e., two replacement trees for every tree removed). Conservation Policy 5.10.1-P4 requires protection of all healthy cedars, redwoods, oaks, olives, bay laurel, and pepper trees of any size and all other trees over 36 inches in circumference, as measured 48 inches above grade. Policy 5.10.1-P4 applies to trees on private property as well as those on public property or in public rights-of-way.

The trees on and adjacent to the project property were surveyed and evaluated by Monarch Consulting Arborists, LLC.¹⁵ The survey assessed the condition of 37 trees, including the black walnut tree on the site and 36 trees growing in proximity to the property. The offsite trees

¹⁵ Monarch Consulting Arborists LLC, *Tree Inventory, Assessment, and Protection Plan*, 1525 Alviso Street, Santa Clara, CA 95052, May 11, 2015.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

include 13 black walnut, 1 almond (*Prunus dulcis*), 1 coast live oak (*Quercus agrifolia*), 2 coast redwood (*Sequoia sempervirens*), 12 Coulter pine, 1 holly oak (*Quercus ilex*), 1 Peruvian pepper (*Schinus molle*), 1 red flowering gum (*Corymbia ficifolia*), 1 tree of heaven (*Ailanthus altissima*), and 3 silk oak (*Grevillea robusta*) trees. Only two trees were evaluated as in good condition, with no apparent problems, good structure and health, and a good outlook for longevity. The majority of the trees (31), were found to be in fair condition, with minor problems that could be mitigated through pruning (for structural defects) or a health care program (for health concerns). Three trees are in poor condition and one, a coast redwood, is dead. All but one of the living trees were given a fair to good rating for suitability for preservation.

Based on the criteria for Conservation Policy 5.10.1-P4, 32 of the trees on the site should be protected under this policy. Project construction activities have the potential to encroach on the canopies and root systems of trees growing adjacent to the site, particularly the holly oak and, to a lesser extent, the almond tree and 13 black walnut trees growing in the adjacent railway easement, which could adversely affect the health of the trees. This would be a **potentially significant impact**, which would be reduced to a less-than-significant level by implementation of the following mitigation measure:

Mitigation Measure BR-2: Prior to the initiation of construction activity, the project sponsor shall retain the services of a certified arborist to establish appropriate protection zones around all adjacent trees that could be adversely affected by the project. Recommended and minimum tree protection zones (TPZs) are identified for each tree in Appendix B2 of the arborist report prepared for the project by Monarch Consulting Arborists (May 2015). TPZ fencing, 6 feet in height, shall be established around each adjacent tree and shall be maintained throughout project construction. At a minimum, the critical root zone (CRZ) identified in Appendix B2 of the arborist report shall comprise the TPZ. The TPZ fencing shall conform to the specifications stipulated in Appendix D of the Monarch arborist report.

Prior to the initiation of construction activity, all project construction contractors shall attend a pre-construction meeting with the project arborist to review the tree protection guidelines, which should identify access routes, storage areas, and work procedures.

No activity shall encroach upon the TPZs and no materials, debris, or excess soil shall be placed within the TPZs. The TPZ fencing shall be periodically inspected and repaired as needed. A certified arborist shall conduct a final inspection of the TPZs prior to their removal at the end of construction. Any warranted remedial work on the trees identified by the arborist shall be performed prior to issuance of occupancy permits for the project.

The landscape plan for the proposed project includes dozens of new trees that would be planted along the site frontage on Alviso Street, along the northern edge of the site (along the sidewalk providing pedestrian access to Building 1), at strategic locations along the southern edge of the

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

site, in the rear patios of Buildings 2 and 3, and within other public rights-of-way on the site. Therefore, the project would not conflict with General Plan Land Use Policy 5.3.1-P10, and implementation of Mitigation Measure BR-2 would ensure that the project would comply with Conservation Policy 5.10.1-P4.

- f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

☐ ☐ ☐ ☒

Explanation: There is no adopted habitat conservation plan (HCP) applicable to the City of Santa Clara. Although the City is located adjacent to the area covered by the *Valley Habitat Conservation Plan*, it would not apply to the proposed project.¹⁶

V. CULTURAL RESOURCES — Would the project:

- a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

☐ ☐ ☒ ☐

Explanation: An evaluation of potential historic resources on the project site was performed by the archaeological consulting firm Archaeological Resource Management (ARM), the results of which are summarized herein.¹⁷

The two large warehouse buildings on the site were constructed some time after 1950 and prior to 1956, based on historical aerial photographs.¹⁸ These buildings were originally used for processing fruit, but by 1961 they were used for manufacturing by the Plastic Product Manufacturing Company. Prior to development of the buildings, the property was cultivated with fruit orchards.

Based on historic research conducted by ARM, in 1876 the project site was part of a larger 8.91-acre property owned by F. Garrigus, whose residence was located on Clay Street, located on the approximate alignment of present-day El Camino Real. By the late 1890s the project site and surrounding lands were owned by Luke Ivancovich, who had immigrated with his brother John to California from Dalmatia, which was then a part of Austria. The brothers became successful fruit growers, cultivating the project site and surrounding land with orchard trees. After John was killed in 1908, Luke and other family members eventually transitioned the family business from cultivation to fruit drying and packing. They operated a fruit drying facility west of the

¹⁶ Debra Caldon, Manager, Water Resources Planning Unit, Santa Clara Valley Water District, personal communication, June 30, 2015.

¹⁷ Archaeological Resource Management, *Preliminary Findings Report for the Alviso Street Property in the City of Santa Clara*, May 14, 2015.

¹⁸ Stantec Consulting Services, Inc., *Phase I Environmental Site Assessment, Santa Clara 1, 1525 Alviso Street and Surrounding APNS (22429-034; 012; and -032), Santa Clara, California*, Stantec Project No. 185803311, October 9, 2014.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

project site, on what is now Civic Center Drive. Their family residence was located across the street, and it remains there today, at 820 Civic Center Drive, opposite the entrance to the project site.

The property remained in the Ivancovich family until 1943, when it was transferred to Harry T. Pile. However, by 1956 it was back under Ivancovich ownership, with Angeline and Katherine Ivancovich holding title. The family residence at 820 Civic Center Drive remained in the Ivancovich family until 2013, when it was sold to the current owners who operate a residential alcohol recovery facility. The two-story building is a high-style example of Spanish Colonial Revival architecture that has been determined to be eligible for inclusion on the California Register of Historic Places.

ARM concluded that the proposed townhome buildings would have a Spanish Colonial Revival architectural style that would be consistent and compatible with the historic building opposite the project site frontage, and the three-story buildings would not visually overwhelm the two-story historic residence. The proposed project would therefore have a *less-than-significant impact* on the adjacent historic resource.

The existing warehouse buildings on the project site lack any distinctive architecture that might contribute to their historic significance. They also lack any equipment or infrastructure associated with their historic use for processing fruit. Accordingly, ARM did not find the structures to be historically significant. The proposed project would therefore have a *less-than-significant impact* on historic resources on the project site.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Explanation: An evaluation of the potential for significant archaeological resources to be present on the project site was performed by the archaeological consulting firm Archaeological Resource Management (ARM), which included an archival search at the Northwest Information Center at Sonoma State University and reconnaissance of the project site by a qualified archaeologist.¹⁹ The archival search revealed that the project site was included in twelve prior archaeological investigations and is within 1/8th-mile of nine other previous studies.

The archival research determined that there are no previously recorded archaeological sites within the project site, but two recorded sites, P-43-1236 and P-43-1493, are located within a 1/8th-mile radius of the site, both historic resources. Site P-43-1236 is an historic industrial building located at 1777 Lafayette Street that was recorded in 1999 by L. Dill. Site P-43-1493 is an historic residence located at 1468 Lafayette Street that was recorded by R. Cartier in 2003. The proposed project would not adversely affect either of these resources.

Based on the archival search and the reconnaissance of the site by ARM, which revealed no historic or prehistoric cultural materials, the archaeological consultant concluded that the project would likely not adversely affect cultural resources. However, the possibility of

¹⁹ Archaeological Resource Management, *Cultural Resource Evaluation of Three Parcels Off of Alviso Street, in the City of Santa Clara*, October 9, 2014.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

encountering buried archaeological resources during construction-related subsurface disturbance cannot be ruled out. If significant prehistoric cultural artifacts are buried within the footprint of disturbance, they could be damaged or destroyed during site grading and excavation activities. This would constitute a *potentially significant, adverse impact*. Implementation of the following mitigation measures would reduce this potential impact to a less-than-significant level.

Mitigation Measure CR-1: In the event that prehistoric or historic resources are encountered during excavation and/or grading of the site, all activity within a 50-foot radius of the find shall be stopped, the Director of Planning and Inspection shall be notified, and a qualified archeologist or paleontologist shall examine the find and make appropriate recommendations. Recommendations could include collection, recordation, and analysis of any significant cultural materials. A report of findings documenting any data recovery during monitoring shall be submitted to the Director of Planning and Inspection.

Mitigation Measure CR-2: In the event that human remains are discovered during excavation and/or grading of the site, all activity within a 50-foot radius of the find shall be stopped. The Santa Clara County Coroner shall be notified and shall make a determination as to whether the remains are Native American origin or whether an investigation into the cause of death is required. If the remains are determined to be Native American, the Coroner will notify the Native American Heritage Commission (NAHC) immediately. Once the NAHC identifies the most likely descendants, the descendants will make recommendations regarding the proper burial which shall be implemented in accordance with Section 15064.5(e) of the *CEQA Guidelines*.

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? ☐ ☐ ☐ ☒

Explanation: Paleontological resources are the fossilized remains of vertebrate or invertebrate organisms from prehistoric environments found in geologic strata. They are valued for the information they yield about the history of the earth and its past ecological settings. They are most typically embedded in sedimentary rock foundations, and may be encountered in surface rock outcroppings or in the subsurface during site grading. As noted in the Santa Clara General Plan Environmental Impact Report (EIR), geologic units of Holocene age are generally not considered sensitive for paleontological resources, because biological remains younger than 10,000 years are not usually considered fossils, and because these sediments have low potential to yield fossils. Fossil-rich geological formations in the Santa Clara Valley include Pleistocene-era alluvial and fluvial strata and the underlying Plio-Pleistocene Santa Clara formation.

The geotechnical investigation report for the project reports that the project site is underlain by Holocene-age alluvium (see Section VI, Geology and Soils). Therefore, it is not expected that

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

paleontological resources would be encountered during project construction, and the project would not have an impact on paleontological resources.

- d) *Disturb any human remains, including those interred outside of formal cemeteries?* ☐ ☒ ☐ ☐

Explanation: Although it is unlikely that human remains lie buried within the project site, Mitigation Measure CR-2, identified in Section V(a), above, includes requirements for the appropriate disposition of human remains in the event they are encountered during subsurface disturbance of the site during project construction.

VI. GEOLOGY AND SOILS — *Would the project:*

- a) *Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:*
- i) *Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.* ☐ ☐ ☐ ☒

Explanation: The evaluation of the project's potential geology and soils impacts is based in part on a site-specific geotechnical investigation prepared for the project by T. Makdissy Consulting, Inc.²⁰ The geotechnical investigation determined that no earthquake faults are located on or near the project site. The nearest seismically active fault is the Hayward fault, located approximately 5 miles east of the site, while the San Andreas fault lies 20 miles to the west. There is therefore no potential for fault rupture at the project site.

- ii) *Strong seismic ground shaking?* ☐ ☒ ☐ ☐

Explanation: The San Francisco Bay Area is classified as Zone 4 for seismic activity, the most seismically active region in the United States.²¹ Similar to most urban locations throughout the Bay Area, the project site is potentially subject to moderate to high seismic ground shaking during an earthquake on one of the major active earthquake faults that transect the region. Major earthquakes have occurred on the Hayward, Calaveras, and San Andreas faults during

²⁰ T. Makdissy Consulting, Inc., *Proposed Residential Development, Alviso Street, Santa Clara, California, Preliminary Geotechnical Findings*, Project No. 397-1, April 7, 2015.

²¹ City of Santa Clara, *2010-2035 General Plan Integrated Final EIR*, January 2011, page 183.

the past 200 years, and numerous minor earthquakes occur along these faults every year. At least five known earthquakes of Richter magnitude (RM) 6.5, four of them greater than RM 7.0, have occurred within the San Francisco Bay Area within the last 150 years. This includes the great 1906 San Francisco earthquake (moment magnitude 7.8) and the 1989 Loma Prieta earthquake (RM 6.9).

According to a 2014 analysis by the Working Group on California Earthquake Probabilities (WGCEP), an expert panel co-chaired by U.S. Geological Society seismologists, there is a 72 percent probability that an earthquake of magnitude 6.7 or greater will occur in the San Francisco Bay Area in the next 30 years and a 20 percent probability that an RM 7.5 earthquake will occur (starting from 2014).²² The WGCEP estimates there is a 14.3-percent chance of an RM 6.7 quake occurring on the Hayward fault in the next 30 years. It is therefore likely that a major earthquake will be experienced in the region during the life of the project that could produce strong seismic ground shaking at the project site.

A major earthquake on any of the active faults in the region could result in very strong to violent ground shaking. The intensity of earthquake ground motion would depend upon the characteristics of the generating fault, distance of the site to the earthquake epicenter and rupture zone, magnitude and duration of the earthquake, and site-specific geologic conditions. The California Geological Survey's Interactive Probabilistic Seismic Hazards Ground Motion Interpolator (2008) indicates there is a 2-percent probability that seismic ground shaking will produce a peak horizontal ground acceleration of at least 0.768 at the site within the next 50 years.²³ This represents a large amount of ground movement, but translates to an event that would be expected to occur once every 475 years; it also means there is a 90-percent chance this level of ground motion will not be exceeded in the next 50 years. Engineers use the estimated peak horizontal ground acceleration to design buildings for larger ground motions than are expected to occur during a 50-year interval, resulting in safer buildings than if they were only designed for the ground motions that we expect to occur in the next 50 years. New buildings are required to be designed in accordance with the California Building Code, which is expected allow a structure to withstand the peak horizontal ground acceleration and associated ground shaking that may occur at a project site.

The geotechnical consultant for the project concluded that with proper site preparation, the site is suitable for the proposed development. However, a strong seismic event could seriously damage the proposed project and put its occupants at risk, which would be a *potentially significant impact*. Accordingly, the following measures are recommended to reduce this impact to a less-than-significant level:

Mitigation Measure GS-1: Prior to issuance of a grading permit, the project sponsor shall retain the services of a qualified geotechnical engineer or engineering geologist to prepare a design-level geotechnical investigation for purposes of identifying project-specific foundation and structural design features needed for the project to withstand the seismic shaking intensity expected at the site in the event of a large earthquake. The report shall confirm or clarify the site preparation recommendations related to

²² Edward H. Field and Members of the 2014 Working Group on California Earthquake Probabilities, U.S. Geological Survey, California Geological Survey, UCERF3: A New Earthquake Forecast for California's Complex Fault System, USGS Open File Report 2015-3009, 2015.

²³ California Department of Conservation, California Geological Survey, Probabilistic Seismic Hazard Map Ground Motion Interpolator (2008), accessed July 3, 2015 at: http://www.quake.ca.gov/gmaps/PSHA/psaha_interpolator.html.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

liquefaction and settlement potential presented in the April 2015 Preliminary Geotechnical Findings report prepared by T. Makdissy Consulting, Inc. The recommendations in the preliminary geotechnical investigation report shall be updated or modified as appropriate to reflect the design-level geotechnical investigation.

Mitigation Measure GS-2: The proposed project design and construction shall incorporate all of the site preparation, foundation design, structural design, drainage, ground improvement performance testing, pavement design, and other recommendations presented in the design-level geotechnical investigation required by Mitigation Measures GS-1, unless modified during construction, based on field conditions, by a qualified registered geotechnical or civil engineer. In addition, the final grading plans shall be reviewed by a qualified registered geotechnical or civil engineer, and any resulting additional recommendations shall be incorporated into the project. All site preparation work shall be performed under the observation of the Geotechnical Engineering firm of record. All design and construction shall conform to the requirements of the latest Uniform Building Code. All structural design and construction shall be subject to final approval by the City of Santa Clara Building Inspection Division.

iii) Seismic-related ground failure, including liquefaction? ☐ ☒ ☐ ☐

Explanation: Liquefaction occurs when clean, loose, saturated, uniformly graded, fine-grained soils are exposed to strong seismic ground shaking. The soils temporarily lose strength and cohesion due to buildup of excess pore water pressure during earthquake-induced cyclic loading, resulting in a loss of ground stability that can cause building foundations to fail. Soil liquefaction may also damage roads, pavements, pipelines, and underground cables. Soils susceptible to liquefaction include saturated, loose to medium dense sand and gravel, low-plasticity silt, and some low-plasticity clay deposits.

The project site is mapped by the U.S. Geological Survey as having a Moderate potential for liquefaction.²⁴ The preliminary geotechnical investigation for the project found that the subsurface strata at the site include a dense layer of clay above a dense sand layer, both of which are non-liquefiable.²⁵ However, there are also loose and medium-dense sands, silts, and low-plasticity clays below the groundwater table that are potentially liquefiable under a design-level earthquake. With groundwater encountered during subsurface boring at depths of 20 to 29 feet below the ground surface (bgs), the potentially liquefiable material is located at depth, but would be expected to produce differential settlement at the ground surface ranging from 1 to 4

²⁴ U.S. Department of Interior, U.S. Geological Survey, *Preliminary Maps of Quaternary Deposits and Liquefaction Susceptibility, Nine-County San Francisco Bay Region, California*, Open File Report 00-444, 2000.

²⁵ T. Makdissy Consulting, Inc., *Op. Cit.*

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

inches, depending on location. Differential settlement could damage building foundations, pavements, and underground utilities in the event of a severe earthquake. While this would be a ***potentially significant impact***, implementation of Mitigation Measures GS-1 and GS-2 would reduce the impact to a less-than-significant level.

iv) Landslides?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Explanation: The preliminary geotechnical investigation for the project reports that the site is topographically uniform (i.e., flat), standing at an elevation of approximately 63 feet above mean sea level. The area surrounding the site is also level, with similar to identical elevations to those on the project site. There are no slopes on or anywhere near the project site. There is therefore no potential for landslide at the site.

b) Result in substantial soil erosion or the loss of topsoil?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Explanation: Any construction project that exposes surface soils creates a potential for erosion from wind and stormwater runoff. The potential for erosion increases on large, steep, or windy sites; it also increases significantly during rainstorms. Although the proposed project would occur on a level site, it would redevelop approximately 2 acres of land, exceeding the one-acre threshold above which the San Francisco Bay Regional Water Quality Control Board (RWQCB) requires implementation of erosion control measures as part of coverage under a Construction General Permit (CGP). The CGP is administered by the RWQCB on behalf of the State Water Resources Control Board (SWRCB).

Site grading and other soil disturbance at the site would create the potential for erosion, which could increase sedimentation in stormwater discharged from the site. Surface runoff from the site is discharged into a storm drain running under Alviso Street and Civic Center Drive that subsequently drains into the channelized Guadalupe River, which discharges into San Francisco Bay. Any eroded soil or other pollutants discharged from the site could therefore adversely affect water quality in the Guadalupe River and San Francisco Bay, which would be considered a ***potentially significant impact***. The impact would be reduced to a less-than-significant level through implementation of the Erosion Control Plan required by Mitigation Measure WQ-1 and addition erosion controls required by Mitigation Measure WQ-2 (see Section IX).

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Explanation: Subsurface conditions at the project site were evaluated through seven soil borings conducted as part of the preliminary geotechnical investigation for the project. The borings were advanced to depths up to 46.5 feet bgs at locations throughout the site. In addition, six

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

cone penetration tests (CPTs) were advanced to depths of approximately 40 feet bgs.²⁶ The subsurface testing determined that subsurface conditions vary across the site, but generally consist of a surface layer of stiff clay fill, ranging in thickness from 3 to 5 feet, over stiff and medium-dense clays that extend to around 13 feet bgs. A thick layer of soft, compressible silty clay underlies the stiff and medium-dense clays, ranging from 7 to 19 feet in thickness. This material is underlain by soft clayey silt and loose sands extending to the depth limits of the borings.

The soft, compressible clays are expected to result in settlement as a result of compaction due to increased loads on the site surface. In addition, as discussed above in Section VI(a)(iii), settlement from liquefaction at depth could result from seismic shaking in the event of a severe earthquake. Such settlement could damage building foundations and site pavements, which would be a **potentially significant impact**. Implementation of Mitigation Measures GS-1 and GS-2 would reduce the impact to a less-than-significant level.

- d) *Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?*

☐ ☒ ☐ ☐

Explanation: Expansive soils have a high shrink-swell potential, and generally occur where soils have a high clay content. Expansive soils form weak support for buildings, and can amplify the effects of seismic shaking during an earthquake, posing a threat to structural stability of buildings. The preliminary geotechnical investigation for the project did not identify expansive soils on the site. However, the site is in an area mapped in the Santa Clara General Plan EIR as having high expansion potential.²⁷ With appropriate site preparation and building design, the hazards from expansive soils can be substantially reduced. Therefore, while the potential for expansive soils at the site could pose a risk to residents of the project, which would be a **potentially significant impact**, implementation of Mitigation Measures GS-1 and GS-2 would reduce the impact to a less-than-significant level.

- e) *Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?*

☐ ☐ ☐ ☒

Explanation: The project site is served by a municipal sewer system, and the proposed project would not require the use of a septic or alternative wastewater disposal system.

²⁶ *Ibid.*

²⁷ City of Santa Clara, 2010-2035 General Plan Integrated Final EIR, Figure 4.5-2, January 2011.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

VII. GREENHOUSE GAS EMISSIONS — *Would the project:*

- a) *Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?*
- ☐ ☐ ☒ ☐

Explanation: CalEEMod was used to quantify greenhouse gas (GHG) emissions associated with construction activities of the proposed project, as well as long-term operational emissions produced by motor vehicles, natural gas combustion for space and water heating, electricity use, and landscape maintenance equipment. CalEEMod incorporates GHG emission factors for the central electric utility serving the Bay Area and mitigation measures based on the California Air Pollution Control Officer's Association (CAPCOA) *Quantifying Greenhouse Gas Mitigation Measures* and the *California Climate Action Registry General Reporting Protocol*.

CalEEMod is sensitive to the year selected, since vehicle emissions have and continue to be reduced due to fuel efficiency standards and low carbon fuels. The operational year of 2018 was analyzed since it is the first full year that the proposed project could conceivably be occupied. The proposed project would be located approximately 0.5 miles from the Santa Clara Caltrain Station. This location would tend to reduce motor vehicle emissions as it would tend to reduce daily trips by increasing the use of mass transportation.

The regulations, plans, and policies adopted for the purpose of reducing GHG emissions that are directly applicable to the proposed project include Title 24 Energy Efficiency Standards for Residential and Non-Residential Buildings and the Title 24 California Green Building Standards Code. The proposed project would be developed to comply with the Title 24 Energy Efficiency Standards for Residential and Non-residential Buildings and would be required to comply with Title 24 California Green Building Standards Code. Thus, the proposed project would be developed in compliance with the requirements of these regulations.

Default rates for energy consumption were assumed in the model. Emissions rates associated with electricity consumption were adjusted to account for Pacific Gas & Electric utility's projected 2018 CO₂ intensity rate. This 2018 rate is based, in part, on the requirement of a renewable energy portfolio standard of 33 percent by the year 2020. CalEEMod uses a default rate of 641.35 pounds of CO₂ per megawatt of electricity produced.

Specific measures to be incorporated into the project design that are intended to further reduce GHG emissions are included in the City's standard review and approval procedures. The proposed townhomes would be Green Key homes.²⁸ Green Key homes include high-efficiency lighting, reduced indoor and outdoor water use practices, solar technology, and many other energy efficient features. These "green" features were accounted for in CalEEMod and their benefits are quantified in the mitigated operational GHG emissions shown in Table GH-1.

²⁸ City Ventures Residences, <http://www.cityventures.com/green-key/>

Table GH-1
Estimated Greenhouse Gas Emissions

Source	Annual CO ₂ e Metric Tons
Construction (30-year amortized)	22.1
Unmitigated Operations	
Area Sources	0.5
Energy	94.4
Mobile	198.2
Solid Waste	8.4
Water	9.0
Total Emissions (Unmitigated)	333
<i>BAAQMD Brightline Threshold</i>	1,100
Total Emissions per Service Population	2.9
<i>BAAQMD Efficiency Threshold</i>	4.6
Potentially Significant?	No
Mitigated Operations	
Area Sources	0.5
Energy	85.7
Mobile	183.0
Solid Waste	8.4
Water	7.4
Total Emissions (Mitigated)	307
<i>BAAQMD Brightline Threshold</i>	1,100
Total Emissions per Service Population	2.7
<i>BAAQMD Efficiency Threshold</i>	4.6
Potentially Significant?	No

Source: CalEEMod Version 2013.2.2.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Estimated construction and operational GHG emissions from the proposed project are presented in Table GH-1. Project construction would generate estimated GHG emissions of 663 metric tons of CO₂e. As indicated, 30-year amortized annual construction-related GHG emissions would be approximately 22 metric tons of CO₂e. There is no BAAQMD CEQA significance threshold for construction-related GHG emissions. However, these values are below the BAAQMD operational threshold of 1,100 metric tons.

The GHG construction and unmitigated operational emissions would be 2.9 metric tons per service population (approximately 114 residents) per year, or 333 metric tons total, which is below the BAAQMD threshold of 4.6 metric tons per service population as well as the BAAQMD operational threshold of 1,100 metric tons. The GHG construction and mitigated operational emissions with implementation of the project design elements and CALGreen standards would be 2.7 metric tons per service population per year, or 307 metric tons total which is also below the BAAQMD threshold of 4.6 metric tons per service population as well as the BAAQMD operational threshold of 1,100 metric tons. Thus, the proposed project would have a *less-than-significant impact* due to GHG emissions.

b) *Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?*

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Explanation: The County of Santa Clara has adopted a Climate Action Plan (CAP) for the purpose of reducing the emissions of greenhouse gases.²⁹ The City of Santa Clara also has a comprehensive GHG emissions reduction strategy to achieve its fair share of Statewide emissions reductions for the 2020 timeframe, consistent with Assembly Bill (AB) 32, the Global Warming Solutions Act. The CAP was adopted on December 3, 2013.³⁰

The City of Santa Clara CAP specifies the strategies and measures to be taken for a number of focus areas (coal-free and large renewables, energy efficiency, water conservation, transportation and land use, waste reduction, etc.) Citywide to achieve the overall emission reduction target, and includes an adaptive management process that can incorporate new technology and respond when goals are not being met.

The CAP establishes a baseline of government and community-wide inventory of GHG emissions. The principal State plan and policy adopted for the purpose of reducing GHG emissions is AB 32. The quantitative goal of AB 32 is to reduce GHG emissions to 1990 levels by 2020. The proposed project would result in a significant impact if it would be in conflict with AB 32 State goals and the goals, policies, and measures of the applicable CAP for reducing GHG emissions. The assumption is that AB 32 and the CAP will be successful in reducing GHG emissions and reducing the cumulative GHG emissions statewide by 2020. The City's projected emissions and the CAP are consistent with measures necessary to meet statewide 2020 goals

²⁹ County of Santa Clara, *Climate Action Plan for Operations and Facilities*, September 2009, <https://www.sccgov.org/sites/osp/Programs/ClimateAction/Pages/Climate-Action-Plan.aspx>

³⁰ City of Santa Clara. 2010. *City of Santa Clara Climate Action Plan*. Adopted December 3, 2013. <http://santaclaraca.gov/home/showdocument?id=10170>

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

established by AB 32 and addressed in the Climate Change Scoping Plan. The City and State have taken these measures, because no project individually could have a major impact (either positively or negatively) on the global concentration of GHGs. Additional information on the Santa Clara CAP is provided in Appendix AQ-4.

Given that the proposed project includes high-efficiency lighting, reduced indoor and outdoor water use practices, and solar technology, and GHG emissions are expected to be less than BAAQMD thresholds, the proposed project would not conflict with implementation of recommended actions in AB 32 and the City of Santa Clara CAP intended to reduce greenhouse gas emissions by the year 2020. Therefore, the proposed project would not conflict with the goals of AB 32 and the applicable CAP.

VIII. HAZARDS AND HAZARDOUS MATERIALS — *Would the project:*

- a) *Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?* ☐ ☐ ☒ ☐

Explanation: The proposed project would not involve the routine transport, use, or disposal of hazardous materials. Residential occupants of the site would be expected to store and use small containerized quantities of hazardous household, outdoor landscape care, and automotive products of a wide variety. This type of usage is typical of all residential development, and would not constitute a significant hazard to the public or the environment.

- b) *Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?* ☐ ☒ ☐ ☐

Explanation:

Phase I Environmental Site Assessment

A Phase I Environmental Site Assessment (ESA) of the project site was performed by Stantec Consulting Services, Inc. in October 2014.³¹ The purpose of the ESA was to identify recognized environmental conditions on the project site, including the presence or likely presence of any hazardous substances that could create a significant hazard to the public or the environment, whether through an existing release, past release, or threat of a release into structures, into the ground, or into surface or groundwater.

The Phase I ESA included a review of publicly available local, State, and federal environmental databases; historical topographic maps from 1899 through 1993; aerial photographs from 1939 through 2012; historic street directories dating to 1922; fire insurance maps dated 1891 to 1966;

³¹ Stantec Consulting Services, Inc., *Op. Cit.*

City directories spanning 1922 to 2013; and other City and County records. Stantec also conducted a reconnaissance of the property and an interview with the real estate broker for the property regarding his knowledge of the site history and conditions.

The project site is listed as Facility 2223-1 in the CA HIST CORTESE environmental database of hazardous materials facilities compiled by the State Water Resources Control Board (SWRCB), the California Department of Resources Recycling and Recovery (CalRecycle) (formerly the California Integrated Waste Management Board (CIWMB)), and the California Department of Toxic Substances Control (DTSC). The site is also listed in the Emissions Inventory Database (CA EMI) compiled by the California Air Resources Board (CARB) as Bronco Toppers, Inc. The database listing indicates that the site was emitting approximately 1 ton of total organic hydrocarbon gases and 1 ton of reactive organic gases per year in 1991. No violations were reported in the CA EMI database, and no other information was provided regarding these listings. Stantec concluded that no environmental concerns for the site were indicated by these database listings.

The database search identified 12 facilities within a quarter-mile radius of the project site that are listed on the SWRCB's Leaking Underground Storage Tank (LUST) database, two of which still have open cases. Amarach, located approximately 500 feet west of the project at 1640 Lafayette Street, is used for vehicle storage and parking. The property has a 1,000-gallon gasoline underground storage tank (UST) that has leaked gasoline-range hydrocarbons into the surrounding soil and groundwater. Partial cleanup of the site has been completed and the remaining contamination plume is confined to Lafayette Street. Due to the distance to this site and its down-gradient location from the proposed project site with respect to groundwater, the Phase I ESA concluded that the Amarach property does not pose an environmental threat to the proposed project.

The other nearby open case in the LUST database is the Firestone store located at 922 El Camino Real, about 955 feet west-southwest of the project; the property is also listed in the Spills, Leaks, Investigations, and Cleanups (SLIC) database maintained by the California Regional Water Quality Control Board (RWQCB). Although a release of toluene from a storage tank was reported in 1990, the case is currently listed as Inactive. The site is cross- and down-gradient from the project site, and because of this and the distance from the project site, the Phase I ESA concluded that this property does not pose an environmental threat to the project site.

The database search also identified 11 facilities within a half-mile radius of the project site that are listed on the RWQCB's SLIC database, including the Firestone store discussed above. Stantec concluded that the other 10 facilities were unlikely to represent an environmental concern to the project because they were located more than 1/8 mile away, involved soil contamination only, and/or because the regulatory cases have been closed.

Although the database search also identified 20 facilities as "unmappable," Stantec relied on various maps and their knowledge of the area to identify those sites assumed to be within the search radii around the project property, and concluded that none of the sites represent an environmental concern to the project site. Stantec also searched records at the Santa Clara County Department of Environmental Health (SCCDEH) and the City of Santa Clara Building Department, as well as the RWQCB's GeoTracker database, and did not identify any environmental concerns for the project site in those government environmental records.

Historical Use of the Site

Based on a review of historical topographic maps, aerial photos, fire insurance maps, and City directories, development on the project site dates at least to 1891, when the site was occupied by

a small dwelling and hay barn. An 1899 map depicted the Southern Pacific Railroad just to the northeast of the site. The site appeared to be vacant in aerial photos from 1939, 1948, and 1950, but Alviso Street was present just to the west of the site. By 1956, two warehouses were present on the site that remain today. Sanborn fire insurance maps from 1961 and 1966 indicated that the warehouses were occupied by the Plastic Product Manufacturing Company, and a railroad spur was located to the north of the more easterly warehouse.

As discussed in more detail in Section V, Cultural Resources, in the late 1890s and early part of the 20th century, the site was associated with agricultural production. By the 1970s, if not sooner, the warehouses were utilized for commercial and/or light industrial uses. For example, City directories listed Santa Clara Carpets at the property in 1974, while N&E Auto Body, IJEA Co., and NEACO Interiors were occupants of the site in 1980. Subsequent occupants included the Phoenix Metal Fasteners, Inc. in 1985, Robert Ivancovich in 2001, and Ivancovich Storage and Baxter MC Construction in 2008. The Phase I ESA reported that the warehouses on the site were historically occupied by building materials manufacturers. The storage/junk yards still extant on the site appeared around 1993.

The Phase I ESA concluded that the historic rail spur on the site and the adjacent railroad tracks represent a recognized environmental condition (REC). Elevated concentrations of toxic heavy metals are commonly associated with the presence of railroad spurs due to the use of herbicides used for weed control. Stantec determined that this REC warranted subsurface testing to determine whether the historic railroad use and maintenance has impacted subsurface conditions at the site. As described below, this additional investigation was subsequently performed as part of a Phase II ESA.

Environmental Conditions on the Site

During the reconnaissance of the project site, Stantec observed no improper drainage discharge from the site and no evidence of USTs or other subsurface structures other than common utilities (water, sewer, electrical, etc.). Stantec also found no evidence of electrical or hydraulic equipment on the site with the potential to contain polychlorinated biphenyls (PCBs). The Phase I ESA found that the site is located in an area of low radon risk, and concluded that radon did not pose an REC to the site, and also eliminated pesticides as a concern for the property. However, due to the large number of vehicles stored on the site and evidence of vehicle maintenance and repairs (e.g., car parts, tools, and gasoline cans), Stantec identified this use as an REC warranting assessment of the site's subsurface to determine whether contamination of the site's soil and/or groundwater has occurred. This use was also determined to pose a potential risk of hydrocarbon vapor releases into the environment and/or into existing or future buildings on the site. As previously noted, a Phase II ESA with subsurface testing, including soil vapor testing, was performed subsequent to the Phase I ESA, the results of which are summarized below.

Given the age of the warehouse buildings, which were present on the site by 1956, the Phase I ESA concluded that it is likely that the buildings contain lead-based paint (LBP) and asbestos-containing building materials (ACBM). Lead is a highly toxic metal that was a common ingredient in paint until it was banned from residential paint in 1978. Exposure to LBP has been linked to learning disabilities and behavioral problems in children, who are particularly susceptible. Lead may also cause brain damage, kidney damage, seizures, and even death in extreme cases.

Asbestos was common in a variety of construction materials until the late 1970s, and can be found in building insulation (both spray-on and blanket types), pipe wraps, floor and ceiling tiles, tile mastics (adhesives), wallboard, mortar, roofing materials, and more. Asbestos is a known human carcinogen, and inhalation exposure to asbestos fibers or dust, known as friable

asbestos, has been linked to an increase risk of lung cancer and mesothelioma, which is a relatively rare cancer of the thin membranes that line the chest and abdomen. Inconclusive evidence has also linked asbestos exposure to a variety of other cancers. With cumulative exposure, asbestos fibers can cause inflammation and scarring of the lungs, resulting in breathing difficulties.

During the proposed demolition of the warehouses, friable asbestos and/or lead could be released into the environment, posing a health hazard to workers. If not addressed properly, the potential health hazards to construction workers posed by ACBM and LBP that may be present on the site would represent a *potentially significant adverse impact*. Implementation of the following mitigation measures would reduce the impact to a less-than-significant level.

Mitigation Measure HM-1: Prior to issuance of a demolition permit for the existing buildings on the site, a comprehensive survey for asbestos-containing building materials (ACBM) shall be conducted by a qualified asbestos abatement contractor. Sampling for ACBM shall be performed in accordance with the sampling protocol of the Asbestos Hazard Emergency Response Act (AHERA). If ACBM is identified, all friable asbestos shall be removed prior to building demolition by a State-certified Asbestos Abatement Contractor, in accordance with all applicable State and local regulations. The Bay Area Air Quality Management District (BAAQMD) shall be notified ten days in advance of any required abatement work. To document compliance with the applicable regulations, the project sponsor shall provide the City of Santa Clara Building Inspection Division with a copy of the notice required by BAAQMD for asbestos abatement work, prior to and as a condition of issuance of the demolition permit.

Mitigation Measure HM-2: Prior to issuance of a demolition permit for the existing buildings on the site, a survey for lead-based paint (LBP) shall be conducted by a qualified lead assessor. If LBP is identified, lead abatement shall be performed in compliance with all federal, State, and local regulations applicable to work with LBP and disposal of lead-containing waste. A State-certified Lead-Related Construction Inspector/Assessor shall provide a lead clearance report after the lead abatement work in the buildings is completed. The project sponsor shall provide a copy of the lead clearance report to the City of Santa Clara Building Inspection Division prior to issuance of a demolition permit.

Phase II Environmental Site Assessment

A Phase II ESA of the project site was performed by Stantec Consulting Services, Inc. in April 2015 to further evaluate the potential for soil and/or groundwater contamination discussed above.³² The Phase II ESA included advancing a total of 16 soil borings at strategic locations throughout the site; the sampling locations are shown on Figure HM-1. Initially, six borings were advanced (SB-1 through SB-6). Based on those analytical results, additional investigation was warranted and an additional 10 locations were tested. All of the borings were shallow exploratory hand auger borings advanced to a depth of 3 feet below the ground surface (bgs),

³² Stantec Consulting Services, Inc., *Phase II Environmental Site Assessment, 1525 Alviso Street and Surrounding APNS (22429-034; 012; and -032), Santa Clara, California*, Stantec Project No. 185803311, April 15, 2015.

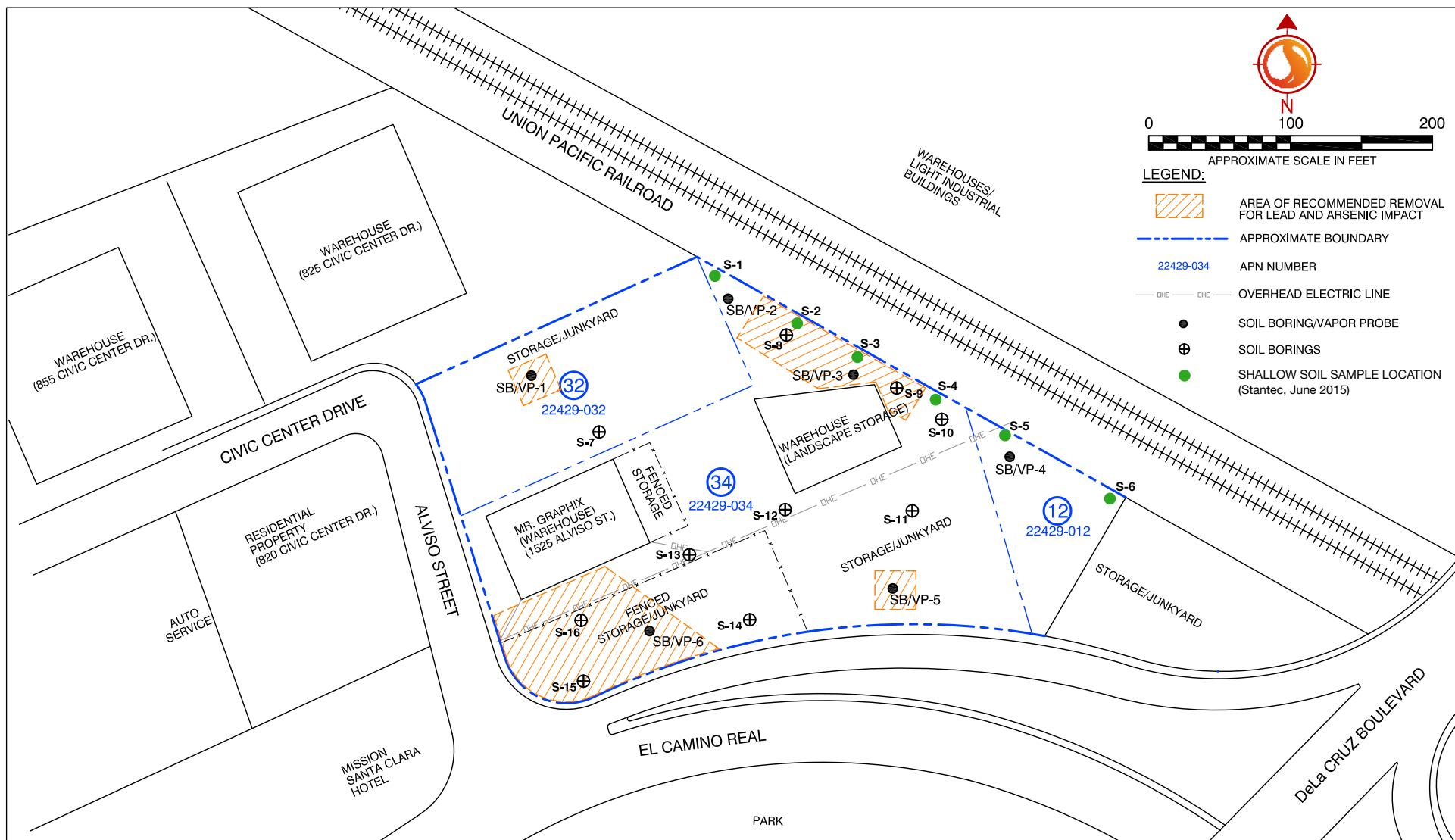


Figure HM-1

Soil and Soil Vapor Sampling Locations

Source: Stantec

with soil samples collected at 1-foot intervals. They included three borings (SB-2, SB-3, and SB-4) in the vicinity of the former railroad spur; the remainder of the borings (SB-1, SB-5, SB-6, and S-7 through S-16) were collected at outdoor storage areas to the north and south of the warehouses. In addition, soil vapor samples were collected from soil vapor probes installed in six hand auger borings advanced to a depth of 5.5 feet bgs (VP-1 through VP-6).

The collected soil samples that were submitted for laboratory analysis to evaluate the presence of total petroleum hydrocarbon (TPH) compounds, volatile organic compounds (VOCs), and heavy metals, including lead and arsenic. The soil vapor samples were analyzed for VOCs and TPH as gasoline (TPH-g).

In the initial six borings, TPH as diesel (TPH-d) and TPH as motor oil (TPH-mo) were detected in each soil sample analyzed at concentrations ranging from 3.8 milligrams per kilogram (mg/kg) to 290 mg/kg, with the highest concentration encountered in SB-3 at 1 foot bgs. The TPH-mo concentrations in four of the samples (SB-1, SB-2, SB-3, and SB-5) exceeded the RWQCB's environmental screening level (ESL) of 100 mg/kg, which is applicable where groundwater is a current or potential source of drinking water and/or where the property is used for residential purposes. TPH-g and other VOCs were not detected in any of the soil samples analyzed.

Arsenic, barium, chromium, cobalt, copper, lead, mercury, nickel, vanadium, and zinc were detected in each soil sample analyzed with the exception of SB-5, where no chromium, cobalt, or nickel was detected. None of the detected concentrations exceeded their respective RWQCB ESLs for residential use, except lead and arsenic. Lead was detected in boring SB-3 and SB-6 above the residential ESL of 80 mg/kg. In addition, lead was detected at several locations at concentrations that could result in exceeding the soluble threshold limit concentration (STLC) of 5 milligrams per liter (mg/L), which would render the material a California hazardous waste if removed from the site. The highest concentration was an STLC of 20 mg/L, reported in boring SB-6.

Although arsenic concentrations in the soil samples from all six of the initial borings exceeded the RWQCB ESL for residential land use (0.39 mg/kg), a recent study of background levels of arsenic in soil in the San Francisco Bay Area determined that arsenic concentrations as high as 12 mg/kg are common.³³ Accordingly, the Phase II ESA utilized a concentration of 12 mg/kg as a screening level for arsenic. Using this parameter, the soil sample from SB-1 at 1 foot bgs exceeded the screening level, with a concentration of 29 mg/kg.

Based on the analytical results of the initial soil borings, the 10 additional borings were advanced and three soil samples were collected at different depths from each of the borings in order to determine the vertical limits of the elevated lead and arsenic concentrations. Lead concentrations were detected above residential RSLs of 80 mg/kg at one (1) foot bgs in borings S-8, S-9, S-15, and S-16. Arsenic was detected in these same borings above the expected background level of 12 mg/kg. No samples detected lead or arsenic above the residential ESLs for lead or background levels for arsenic.

Because of these elevated TPH-mo, lead, and arsenic concentrations, there is the potential for construction workers and future project residents to be exposed to TPH compounds and toxic metal concentrations above regulatory thresholds, which could cause adverse health effects and would be a *potentially significant adverse impact*. Implementation of the following mitigation measures would reduce this impact to a less-than-significant level:

³³ Dylan Duvergé, *Establishing Background Arsenic in Soil of the Urbanized San Francisco Bay Region*, 2011.

Mitigation Measure HM-3: Areas of contaminated soil identified in the hatched areas on Figure HM-1 shall be excavated to a depth of 1.5 feet below the ground surface and properly disposed of prior to issuance of a grading permit for the project. The contaminated soils shall be excavated and removed by a qualified Removal Contractor and disposed of at a regulated Class I hazardous waste landfill in accordance with U.S. Environmental Protection Agency regulations and/or applicable State regulations. Employees of the Removal Contractor assigned to the project shall have completed a safety training program that complies with federal Occupational Safety and Health Administration (OSHA) requirements set forth in Title 29, Section 1910.120 of the Code of Federal Regulation (CFR) and with California Occupational Safety and Health Administration (CAL-OSHA) requirements set forth in Title 8, Section 5192 of the California Code of Regulations (CCR). If temporary stockpiling of contaminated soil is necessary, it shall be covered with plastic sheeting or tarps and a berm shall be constructed around the stockpile to prevent stormwater runoff from leaving the area. Confirmation sampling shall be performed on soils surrounding the excavations to verify that all contaminated soil above regulatory thresholds has been removed.

The Removal Contractor shall obtain, complete, and sign hazardous waste manifests to accompany the soils to the disposal site. If applicable, other non-hazardous excavated soils shall be disposed of in an appropriate landfill, as governed by applicable laws and regulations.

Following completion of the removal of impacted soil, Stantec or another qualified Registered Environmental Assessor shall prepare a closure report to be reviewed and approved by the Santa Clara County Department of Environmental Health (CSCDEH). The project applicant shall provide a copy of the "No Further Action" letter (i.e., regulatory case closure) from CSCDEH to the City of Santa Clara Building Inspection Division prior to issuance of a grading permit.

Mitigation Measure HM-4: Prior to initiating any work, the Removal Contractor specified in Mitigation Measure HM-3 shall prepare a Health and Safety Plan (HASP) to be implemented throughout the excavation and removal of contaminated soil from the project site. The HASP would specify safe contaminated soil handling and disposal procedures and would identify procedures and other protections for workers to prevent exposure to contaminants, inundation of excavations, excessive noise levels, and other potential hazards. The HASP would identify measures for eliminating or controlling hazards, monitoring exposure levels, worker training procedures, emergency response procedures for a variety of potential emergencies, first aid and medical treatments, and required record keeping.

Mitigation Measure HM-5: Throughout the contaminated soil excavation and removal required by Mitigation Measure HM-3, the soil and excavation areas shall be watered as necessary to prevent airborne dust, including dust generated by wind blowing over disturbed dry soil. Water used for this purpose shall not be allowed to flow outside of the immediate work area, and shall be contained by berms, if necessary.

Mitigation Measure HM-6: Air monitoring and/or sampling for lead and volatile organic compounds (VOCs) shall be conducted throughout the soil excavation and removal to document that lead and total VOC concentrations at the work zone perimeter do not exceed federal Occupational Safety and Health Administration (OSHA) action levels. Measurements shall be taken in the site workers' typical breathing zones. Air sampling shall be performed using methods approved by the National Institute for Occupational Safety and Health (NIOSH) or the U.S. Environmental Protection Agency (USEPA). If the airborne concentration of lead exceeds 30 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) of air averaged over an 8-hour period, work shall be halted until all workers can be equipped with half-mask air purifying respirators with high-efficiency filters with a 99.97-percent efficiency rating for particles of 0.3 microns or larger. The workers shall wear the respirators for the remainder of the soil removal activities. If airborne VOC levels exceed the applicable action levels, work shall be halted until corrective action is taken to reduce emissions to acceptable limits.

Additional Subsurface Soil Testing

Subsequent to the completion of the Phase II ESA summarized above, Stantec Consulting Services performed additional soil sampling and testing at the request of the Santa Clara County Department of Environmental Health (CSCDEH).³⁴ Stantec advanced six additional shallow hand auger borings (S-1 through S-6, shown on Figure HM-1) along the site's northern boundary, adjacent to the railroad easement. Soil samples were collected from depths of 0.5 to 1 foot bgs and submitted for laboratory analysis for PCBs, organochlorine pesticide (OCPs), and polyaromatic hydrocarbons (PAHs) using U.S. Environmental Protection Agency (USEPA)-approved methods.

None of the soil samples submitted had any detectable concentrations of PCBs above laboratory method detection limits (i.e., the results were "non-detect" for PCBs). Trace detections of OCPs (Chlordane, 4,4'-DDD, and 4,4'-DDT) were reported in the soil sample collected from boring S-5 and only 4,4'-DDT was detected in boring S-3. All concentrations were below the RWQCB's ESLs applicable when groundwater is a current or potential source of drinking water.

³⁴ Stantec Consulting Services, Inc., *Additional Shallow Soil Sampling, 1525 Alviso Street and Surrounding APNS (22429-034; 012; and -032), Santa Clara, California*, Stantec Project No. 185803311, June 18, 2015.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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Minor detections of PAHs were reported in four of the six shallow soil samples (S-3 through S-6). All concentrations, with the exception of benzo(a)pyrene, were below their corresponding RWQCB ESL. Benzo(a)pyrene was detected at 0.105 mg/kg in S-3, which is above its corresponding RWQCB ESL of 0.038 mg/kg. The detection of benzo(a)pyrene was flagged by the laboratory as an estimated value between the laboratory reporting limit and method detection limit. While human exposure to the elevated soil concentration of benzo(a)pyrene would be a ***potentially significant impact***, Mitigation Measure HM-3 requires removal of the soil at location S-3 that contains the benzo(a)pyrene concentration, with disposal of the soil at a licensed hazardous waste facility. Therefore, with implementation of Mitigation Measure HM-3, this impact would be less than significant.

Aside from those discussed above, no other environmental hazards were identified in the three site assessments conducted by Stantec Consulting Services.

- c) *Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?*

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Explanation: There are no schools located within one-quarter mile of the project site. The nearest school is Santa Clara University, located about 2,000 feet (0.4 mile) south-southeast of the site. The nearest school with children is St. Clare School, a private Catholic elementary school located at 725 Washington Street, approximately 2,850 feet (0.54 mile) south of the project site. In addition, Scott Lane Elementary School, at 1925 Scott Boulevard, is located about 3,500 feet (0.66 mile) west of the site. In any event, the proposed project would not emit hazardous emissions, handle hazardous materials, or generate hazardous waste. There would be no project impact on schools related to hazardous materials.

- d) *Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?*

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Explanation: As discussed in more detail in Section VIII(b), above, the Phase I ESA performed for the project included a search of multiple federal and State agency databases for hazardous materials release sites, hazardous materials use and storage sites, or hazardous waste generation, including those compiled pursuant to Government Code Section 65962.5. Although the project site was historically listed in two regulatory databases (CA HIST CORTESE and CA EMI), the Phase I ESA concluded that no environmental concerns for the site were indicated by these database listings. Please see Section VIII(b) for additional information.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- e) For a project within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

☐ ☐ ☒ ☐

Explanation: Norman Y. Mineta San Jose International Airport is located about 3,500 feet (0.66 mile) northeast of the project site; the site therefore falls within the planning area for the Comprehensive Land Use Plan (CLUP) for the airport adopted by the Santa Clara County Airport Land Use Commission (ALUC).³⁵ The primary hazards associated with airports are exposure of people on the ground to elevated noise levels, which is addressed in Section XII, Noise; exposure to potential aircraft accidents; and creation of obstructions to air navigation.

To address the problem of potential obstructions, Part 77 of the Federal Aviation Regulations (FAR) establishes complex three-dimensional imaginary spaces for airports and their runways for purposes of protecting navigable air space. The dimensions of the imaginary spaces vary from airport to airport, depending on factors such as the length and type of runways, type of instrument approach, aircraft design, and other factors. FAR Part 77 generally restricts penetration of these imaginary spaces by new development so as to avoid the creation of a hazard to safe air navigation. The San Jose Airport CLUP defines these spaces for San Jose Airport.

The structural height restrictions imposed by the Part 77 three-dimensional surfaces are simplified on Figure 6 of the CLUP, which consolidates and maps the height restrictions from all of the surfaces onto a single figure. The project site is located in an area mapped as having a maximum allowable structure height of 212 feet above mean sea level (msl). The proposed project would have a finished grade elevation of up to 66 feet msl. The 40-foot-tall townhomes would therefore have a maximum elevation height of 105 feet, well under the allowable maximum height. Therefore, the project would not create an obstruction or hazard to air navigation.

To address the potential hazard from potential aircraft accidents, which diminishes with increased distance from airport runways, the San Jose Comprehensive Land Use Plan establishes a variety of Airport Safety Zones, including the Runway Protection Zone (RPZ), Inner Safety Zone (ISZ), and Turning Safety Zone (TSZ), among others. The safety zones are exclusive in their coverage, and do not overlap. Each safety zone has its own restrictions. No development is permitted within the RPZ.

The project site is outside of all of the Airport Safety Zones except the Traffic Pattern Zone (TPZ).³⁶ Although this is an area that is routinely overflown by aircraft operating in the airport traffic pattern, the CLUP states that the potential for aircraft accidents in the TPZ is relatively low, and the need for land use restrictions is minimal. The CLUP also notes that all areas within the much larger Airport Influence Area (AIA) are potentially subject to aircraft overflights. The CLUP states that the conversion of existing industrial use to residential uses “should be the subject of careful consideration of the potential impacts of aircraft overflights.” Although

³⁵ Santa Clara County Airport Land Use Commission, *Comprehensive Land Use Plan, Santa Clara County, Norman Y. Mineta San Jose International Airport*, adopted May 25, 2011.

³⁶ *Ibid.*, Figure 7: Airport Safety Zones.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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certain land uses are prohibited within various safety zones, the only explicit land use restriction identified for the TPZ is that sports stadiums with a capacity greater than 20,000 people, or similar uses with a very high concentration of people, are prohibited.

There are certain other uses that are prohibited within all Airport Safety Zones, such steady or flashing lights of red, white, green, or amber colors directed toward an aircraft engaged in an initial straight climb following takeoff or toward an aircraft engaged in a straight final approach towards landing. Uses that would generate electrical interference, generate smoke or water vapor, or attract large concentrations of birds are also prohibited.

The CLUP Compatibility Policies were reviewed to identify policies with which the proposed project could conflict or be incompatible; no conflicts were identified. The relationship of the proposed project to the Aircraft Noise Contours presented in the CLUP is discussed in Section XII, Noise. Based on the preceding analysis and that presented in Section XII, the proposed project does not appear to conflict with the CLUP or have the potential to pose an air safety hazard to project occupants or airport workers and patrons. This was confirmed by the Santa Clara County ALUC during a July 22, 2015 meeting. The project would therefore have a *less-than-significant impact* from introducing a new safety hazard near San Jose Airport.

The Santa Clara County ALUC encourages local jurisdictions to submit referrals to the Commission for any residential development of five or more dwelling units located within the AIA, among other developments and agency actions recommended for referral. All new projects within the AIA are also required to dedicate an avigation easement to the City of San Jose. The purpose of the avigation easement is to inform prospective buyers of the potential for airport impacts, such as overflights and associated aircraft noise. As noted above, the ALUC reviewed the proposed project at a July 22, 2015 meeting and recommended approval of the project with an avigation easement.

- f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area? ☐ ☐ ☐ ☒

Explanation: There are no private airstrips in the vicinity of the project site.

- g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? ☐ ☐ ☒ ☐

Explanation: Although the City of Santa Clara does not have formal emergency evacuation routes, the proposed project would not close off or otherwise alter any existing streets, and therefore would not create any obstructions to potential evacuation routes that might be used in the event of an emergency. The Santa Clara General Plan EIR concluded that although new development and redevelopment allowed under the 2010-2035 General Plan could potentially impair the implementation of or physically interfere with adopted emergency response plans, including the *City of Santa Clara Emergency Response Plan* (2008) and the Association of Bay Area Government's *ABAG Local Hazards Plan*, implementation of existing regulations and programs

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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would ensure that this would be a less-than-significant impact. Because the proposed project development would be consistent with the development envisioned in the General Plan, the project would have a *less-than-significant impact* related to potential conflicts with adopted emergency response plans.

- h) *Expose people or structures to significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?*

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Explanation: The project is located in a fully built-out area with extensive light industrial and some commercial development to the north and east, and predominantly residential development with some institutional and commercial uses to the south and west. There are no wildlands in the project area, and therefore there is no potential for the proposed project to result in the exposure of people or structures to wildland fires.

IX. HYDROLOGY AND WATER QUALITY — *Would the project:*

- a) *Violate any water quality standards or waste discharge requirements?*

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Explanation:

Operational Impacts

For residential development projects, the most common source of pollutants with a potential to degrade surface water quality is the automobile, which deposits oil and grease, fuel residues, heavy metals (e.g. lead, copper, cadmium, and zinc), tire particles, and other pollutants onto roadways and parking areas. These contaminants can be washed by stormwater runoff into surface waterways, degrading water quality.

Urban/suburban developments introduce a variety of other pollutants that contribute to surface water pollution, including pesticides, herbicides, and fertilizers from landscaping; organic debris (e.g. grass, leaves); weathered paint; eroded metals from painted and unpainted surfaces; organic compounds (e.g., cleaners, solvents, adhesives, etc.); nutrients; bacteria and viruses; and sediments. Even building rooftops are a source of pollutants, because mercury and polychlorinated biphenyls (PCBs) are airborne pollutants that get deposited on roofs and other impervious surfaces. While the incremental pollutant load from a single site may not be significant, the additive, regional effects of pollutants from all development have a significant adverse effect on water quality and the innumerable organisms that depend on the region's surface water bodies. Even low concentrations of heavy metals such as mercury bioaccumulate in fish, resulting in levels that adversely affect the health of sea animals and humans that eat them. Testing in the San Francisco Bay Area has shown elevated levels of mercury and PCBs in the sediment of urban storm drains throughout the region.

Operation of the project following completion of construction would have the potential to adversely affect surface water quality, for the reasons set forth above. However, the project would be required to comply with the stormwater treatment requirements described below, and compliance with these requirements would ensure that *operational impacts would be less than significant*.

Operational stormwater discharges from new development are regulated by the terms of each jurisdiction's municipal stormwater permits. In the City of Santa Clara, development projects must comply with the National Pollutant Discharge Elimination System (NPDES) permit (NPDES Permit No. CAS612008) issued to the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP) and other Bay Area jurisdictions by the San Francisco Bay Regional Water Quality Control Board (RWQCB) (NPDES Order No. R2-2009-0074). The revised Municipal Regional Stormwater Permit (MRP) was issued on October 14, 2009 and replaced the previous permit originally issued in February 2003 with substantial new requirements for development and redevelopment projects.

Under the current MRP, any private or public development project that would create or modify 10,000 square feet or more of impervious surfaces must comply with Provision C.3. Projects subject to Provision C.3 must include low-impact development (LID) measures to treat stormwater runoff. Project applicants are required to implement appropriate source control and site design measures and to design and implement stormwater treatment measures in order to reduce the discharge of stormwater pollutants to the *maximum extent practicable* (MEP), a standard established by the 1987 amendments to the federal Clean Water Act.

Following construction, stormwater collection and drainage would occur along the proposed streets via storm grates and catch basins located within the curbs. Collected stormwater from the streets would be directed to one of four grassy bio-retention areas located near the edges of the site (see Figure 18); these swales would provide natural treatment of stormwater through biofiltration. Stormwater would also be collected from all other impervious surfaces (including roofs) and directed to the bio-retention areas. Treated stormwater from the site would be discharged into existing storm drains running under Alviso Street and Civic Center Drive. These facilities drain to the channelized Guadalupe River, which is hydrologically connected to San Francisco Bay.

The project would create 47,744 square feet of new impervious surfaces and would replace 12,318 square feet of existing impervious surfaces. There are currently 66,439 square feet of existing impervious surfaces on the site. Thus, the project would result in a net reduction in impervious surfaces of 6,377 square feet.³⁷ The onsite treatment requirements were calculated with the Urban Runoff Quality Management (URQM) method, which uses a combination of flow and volume design. Under Section C.3 of the MRP, the project would be required to provide 2,384.62 square feet of bioretention/treatment facilities with a treatment capacity of 3,729.09 cubic feet of stormwater. The project would provide 2,385 square feet of bio-treatment areas with a treatment capacity of 3,733.73 cubic feet, complying with the C.3 requirements.

Provision C.3 of the MRP also includes hydromodification management (HM) requirements for certain projects located in areas susceptible to hydrograph modification. Hydrograph modification occurs when an undeveloped site is developed with impervious surfaces such as buildings and pavements, which prevents natural infiltration by rain water, and which results in an increase in the volume and rate of stormwater runoff from the site. Hydrograph modification has the undesirable effect of increasing erosion of natural creeks and earthen channels, which can cause flooding, property damage, degradation of stream habitat, and

³⁷ C2G/Civil Consultants Group, Inc., Provision C.3 Data Form, Alviso Village, 1525 Alviso Street, July 2015.

deterioration of water quality. Projects that create or replace 1 acre or more of impervious surfaces on sites within an area of HM applicability as mapped by the SCVURPPP must implement HM measures to control the flow and duration of stormwater runoff. Areas where the HM requirements apply are within catchments and subwatersheds comprised of less than 65 percent impervious surfaces. HM measures can include site design and hydrologic source control measures, on-site structural HM measures, and in-stream restorative measures. The project site is not located within an area subject to HM requirements.³⁸

As part of compliance with the C.3 requirements, the project sponsor will be required to prepare and implement a C.3 Stormwater Control Plan to reference and incorporate current construction and post-construction requirements specified by State Water Resources Control Board (SWRCB) Order No. 2009-0009-DWQ and the post-construction requirements specified by NPDES Order No. R2-2009-0074 and the SCVURPPP. The C.3 Stormwater Control Plan should be developed in accordance with the provisions of SCVURPPP's *C.3 Stormwater Handbook* guidance manual (April 2012).

Construction Impacts

Construction activities could potentially affect water quality as a result of erosion of sediment. In addition, leaks from construction equipment; accidental spills of fuel, oil, or hazardous liquids used for equipment maintenance; and accidental spills of construction materials are all potential sources of pollutants that could degrade water quality during construction. If not properly addressed, construction impacts on water quality could be particularly severe because storm runoff from the site is ultimately discharged into San Francisco Bay via the Guadalupe River. Both the Guadalupe River and San Francisco Bay are on the list of impaired water bodies compiled by the San Francisco Bay Regional Water Quality Control Board (RWQCB) pursuant to the federal Clean Water Act. Because the State is required to develop action plans and establish Total Maximum Daily Loads (TMDLs) to improve water quality within these water bodies, uncontrolled discharge of pollutants into them would be particularly detrimental.

As part of any new development at the site, the project sponsor would be required to obtain a General Construction Activity Stormwater Permit and carry out measures required to manage and control erosion from the site during construction pursuant to the requirements of the Regional Water Quality Control Board. Best Management Practices (BMPs) would include, but not be limited to, minimizing the migration of sediments off-site, covering soil stockpiles, sweeping soil from streets or other paved areas, site preparation in dry periods, and the planting of vegetation or landscaping in a timely manner. These measures should be consistent with the Association of Bay Area Governments' *Manual of Standards for Erosion and Sedimentation Control Measures* (2005 Updated Edition). Although project construction effects on surface water quality could result in a ***potentially significant impact***, implementation of Mitigation Measures WQ-1 and WQ-2 would ensure that construction impacts on water quality remain less than significant.

³⁸ Santa Clara Valley Urban Runoff Pollution Prevention Program, HMP Applicability Map, City of Santa Clara, November 2010.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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Mitigation Measure WQ-1: The project sponsor shall obtain National Pollutant Discharge Elimination System (NPDES) construction coverage as required by Construction General Permit (CGP) No. CAS000002, as modified by State Water Resources Control Board (SWRCB) Order No. 2009-0009-DWQ. Pursuant to the Order, the project applicant shall electronically file the Permit Registration Documents (PRDs), which include a Notice of Intent (NOI), a risk assessment, site map, signed certification, Stormwater Pollution Prevention Plan (SWPPP), and other site-specific PRDs that may be required. At a minimum the SWPPP shall incorporate the standards provided in the Association of Bay Area Governments' *Manual of Standards for Erosion and Sedimentation Control Measures* (2005), the California Stormwater Quality Association's *California Stormwater Best Management Practices Handbook* (2009), the prescriptive standards included in the CGP, or as required by the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP), whichever are applicable and more stringent. Implementation of the plan will help stabilize graded areas and reduce erosion and sedimentation. The plan shall identify Best Management Practices (BMPs) that shall be adhered to during construction activities. Erosion-minimizing efforts such as hay bales, water bars, covers, sediment fences, sensitive area access restrictions (for example, flagging), vehicle mats in wet areas, and retention/settlement ponds shall be installed before extensive clearing and grading begins. Mulching, seeding, or other suitable stabilization measures shall be used to protect exposed areas during construction activities.

Mitigation Measure WQ-2: All cut-and-fill slopes shall be stabilized as soon as possible after completion of grading. No site grading shall occur between October 15th and April 15th unless approved erosion control measures are in place.

b) *Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?*

☐ ☐ ☐ ☒

Explanation: The project would create 60,062 square feet (about 1.38 acres) of new impervious surfaces at the project site. However, as reported in the previous subsection, nearly 75 percent (66,439 square feet) of the approximately 2.1-acre site is currently developed with impervious surfaces. Implementation of the project would therefore result in a net reduction in impervious surfaces. Therefore, the project would not reduce the amount of groundwater recharge that

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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occurs at the site. Furthermore, the Santa Clara General Plan EIR indicates that only a small area in the southwest corner of the City is within the recharge area for the potable water aquifer; the project site is not located within that area.³⁹

- c) *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?*

☐ ☐ ☒ ☐

Explanation: The creation of new paved streets, construction of homes, and landscaping of yards would all alter the existing drainage patterns on the project site, which is currently occupied by two large warehouses, surrounding pavement, and outdoor vehicle storage areas. Because the total amount of impervious surfaces would be reduced in comparison with existing conditions, the amount of stormwater runoff from the site would be reduced. While stormwater runoff has the potential to cause erosion and sedimentation in downstream receiving waters, such impacts would be minimized through compliance with the C.3 requirements of the Santa Clara Valley Urban Runoff Pollution Prevention Program, discussed in Section IX(a), above. With compliance with the C.3 stormwater requirements, the project would have a *less-than-significant impact* due to the alteration of the existing drainage pattern on the site.

- d) *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?*

☐ ☐ ☐ ☒

Explanation: The project would not alter the course of a stream or river. Although it would alter the existing drainage pattern of the site, as discussed above, it would not increase the volume or rate of surface runoff because it would reduce the amount of impervious surfaces on the site. There is therefore no potential for the project to increase the risk of on- or off-site flooding.

- e) *Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?*

☐ ☐ ☒ ☐

Explanation: As discussed above in Section IX(c), implementation of the proposed project would result in a reduction in stormwater runoff from the site. While the runoff would contain typical pollutants entrained in stormwater from urban areas, the project would provide on-site treatment of all stormwater runoff from the site via biofiltration, in compliance with Provision

³⁹ City of Santa Clara, 2010-2035 General Plan Integrated Final EIR, Section 4.4.4.3, January 2011.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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C.3 of the NPDES Municipal Storm Water Permit, which is administered by the Santa Clara Valley Urban Runoff Pollution Prevention Program. As part of this process, the applicant will be required to prepare and implement a Stormwater Control Plan that must demonstrate that the project would not increase stormwater flows, and must identify the necessary stormwater treatment facilities and measures incorporated into the project to control pollutant discharges from the site. With compliance with the C.3 stormwater requirements, the project would have a *less-than-significant impact* due to the alteration of the existing drainage pattern on the site.

f) *Otherwise substantially degrade water quality?* ☐ ☐ ☒ ☐

Explanation: See Section IX(a). Other than the impacts identified therein, the project would not have the potential to substantially degrade water quality.

g) *Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?* ☐ ☐ ☐ ☒

Explanation: The project site is within a larger surrounding area mapped as Zone X by the Federal Emergency Management Agency (FEMA), which is the designation assigned to areas that have been determined to be outside of the 0.2 percent annual chance flood plain (i.e., the 500-year flood plain).⁴⁰ About 50 feet south of the site, on the south side of El Camino Real, is an area designated on the FEMA Flood Insurance Rate Map (FIRM) as Zone AH, which is assigned to areas that are located within the floodway of the 1-percent annual chance (100-year) flood plain and for which the base flood elevations have been determined, which in this case is an elevation of 65 feet above mean sea level. FEMA indicates that the 100-year flood in Zone AH will have a depth of 1 to 3 feet, usually in areas of ponding. This limited Zone AH area south of the project extends to the southeast, encompassing the area occupied by the Santa Clara Police Department. Based on the FEMA FIRM, the project would not place housing within a 100-year flood hazard area.

h) *Place within a 100-year flood hazard area structures which would impede or redirect flood flows?* ☐ ☐ ☐ ☒

Explanation: As discussed in Section IX(g), above, the project site is not located within a 100-year or 500-year flood hazard area.

⁴⁰ Federal Emergency Management Agency, Flood Insurance Rate Map, Santa Clara County, California and Incorporated Areas, Community Panel Number 06085C0227H, effective date May 18, 2009.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- i) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Explanation: The project site is located at the outer edge of the potential dam failure inundation zone for Lenihan (formerly Lexington) Dam, as determined by the California Office of Emergency Services.⁴¹ Lenihan Dam is located on Los Gatos Creek, approximately nine miles from the City of Santa Clara, and has a total capacity of 19,044 acre-feet,⁴² with a surface area of 412 acres. The mapped inundation area assumes complete failure of the dams with full reservoirs that are completely emptied. The actual extent and depth of inundation in the event of a failure would depend on the volume of storage in the reservoir at the time of failure.

The Santa Clara General Plan EIR evaluated the potential impact from dam failure inundation on new development allowed under the 2010-2035 General Plan. The discussion notes that Lenihan (Lexington) Dam is now typically operated at less than 50-percent capacity, and therefore, the actual inundation zone in the unlikely event of a failure would be substantially smaller than the mapped inundation zone. Since the project site is located at the very edge of the mapped inundation zone, it is presumed to be outside of the actual inundation zone.

Furthermore, as noted in the General Plan EIR, the City of Santa Clara participated in the update of a multi-jurisdictional Local Hazard Mitigation Plan (LHMP) that takes a regional approach to planning for and mitigating the effects of a variety of natural disasters, including flooding. The planning effort, led by the Association of Bay Area Governments (ABAG), culminated in the adoption of *Taming Natural Disasters* in 2011 by the City of Santa Clara and other participating jurisdictions. *Taming Natural Disasters* provides guidance to local governments focused on reducing loss due to large-scale disasters by increasing preparedness and response efficiency. Having an approved LHMP increases the eligibility of local governments for State and federal grants and disaster relief funds.

The General Plan EIR concluded that under existing government code requirements, flood hazards would be managed consistent with the latest standard of care, and impacts from increased exposure to flood hazards under the General Plan would be less than significant. Since the proposed project is consistent with the land use and population assumed for the project site in the General Plan, the project's potential impact related to exposing people to a risk of flooding was previously disclosed in the EIR, and no further analysis is necessary. This would be a *less-than-significant impact*.

- j) Inundation by seiche, tsunami, or mudflow?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Explanation: Tsunamis (seismic sea waves) are long-period waves that are typically caused by underwater disturbances (landslides), volcanic eruptions, or seismic events. Areas that are

⁴¹ City of Santa Clara, *2010-2035 General Plan Integrated Final EIR*, Figure 4.4-1, January 2011.

⁴² An acre-foot is the amount of water necessary to cover one acre of surface area to a depth of 1 foot. It is equivalent to approximately 325,851 gallons of water. From a planning standpoint, 1 acre-foot is the amount of water assumed to be consumed in one year by the typical suburban household of four people.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

highly susceptible to tsunami inundation tend to be located in low-lying coastal areas such as tidal flats, marshlands, and former bay margins that have been artificially filled but are still at or near sea level. The General Plan EIR determined that the City of Santa Clara is not located within a tsunami inundation area, based on maps prepared by the California Emergency Management Agency. Therefore, the project would not be subjected to inundation by tsunami.

A seiche is a free or standing wave oscillation(s) of the surface of water in an enclosed or semi-enclosed basin that may be initiated by an earthquake. The General Plan EIR identified only two water bodies within the City where seiches could potentially occur, neither of which is near the project site, so there is no potential for inundation by seiche at the site.

Debris flows, mudslides, and mudflows begin during intense rainfall as shallow landslides on steep slopes. The rapid movement and sudden arrival of debris flows can pose a hazard to life and property during and immediately following a triggering rainfall. The project site is essentially flat, as is the surrounding area. There is therefore no potential for mudslides or debris flows.

X. LAND USE AND PLANNING — *Would the project:*

- a) *Physically divide an established community?* ☐ ☐ ☐ ☒

Explanation: The project site is currently developed with two large one-story warehouses and both paved and unpaved outdoor storage areas for trucks and a variety of other vehicles. The site is bounded on the north by light industrial uses, on the northeast by a rail corridor, on the west by a mix of commercial and residential uses, and on the south by a major arterial roadway.

The proposed project would redevelop the site with new residences served by new on-site streets. The project does not include construction of new off-site roadways that could physically divide an existing neighborhood, nor would it otherwise create any barriers to existing circulation within the community. Therefore, implementation of the proposed project would not physically divide an established community.

- b) *Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?* ☐ ☐ ☒ ☐

Explanation:

General Plan: Land Use

The General Plan land use designation of the site is Community Mixed Use. The General Plan has land use maps for three different phases of future development (Phase I: 2010-2015; Phase II: 2015-2023; and Phase III: 2023-2035); the Community Mixed Use designation is assigned to

the project site under all three phases of the General Plan. Subsequent to adoption of the General Plan in 2010, the City adjusted the Phase II period to 2015-2023 and the Phase III period to 2023-2035.

The Community Mixed Use designation is a combination of the Community Commercial and Medium Density Residential designations and is intended to encourage a mix of residential and commercial uses along major streets. The General Plan adopted in 2010 indicates that auto-oriented uses are generally not appropriate in this designation, and parking should be behind buildings, below-grade, or within structures so that active uses face public streets. The allowed density for residential development is 19 to 36 units per acre. The General Plan was subsequently amended in 2014 to set the minimum residential density for the Community Mixed Use land use designation to 20 units per acre.

The project site encompasses approximately 2.097 acres of land area, which would allow development of the site with between 42 and 75 units under the allowed density for the Community Mixed Use designation. While the 40 proposed townhomes, with a density of 19.07 dwelling units per acre, are marginally below the minimum density for the Community Mixed Use designation, the City Council has discretion to approve projects that are outside a specified General Plan density range. Since the City Code no longer requires projects with PD zoning to strictly conform with General Plan density requirements, and a rezoning to a PD district is part of the proposed project, this minor deviation from the allowable density would be a *less-than-significant impact*.

Parking for the townhomes would be within the building structures, and would be in rear-loaded garages in Building 2, such that no garage doors would face the Alviso Street frontage. The proposed eight parking spaces in the southeast corner of the site would be approximately 20 feet below the adjacent on-ramp to El Camino Real, and thus would not be visible from off-site locations, consistent with the General Plan direction for the Community Mixed Use designation.

General Plan Policies

Because Santa Clara has virtually no vacant land, the General Plan is focused on guiding redevelopment of existing sites from lower to higher intensity uses. The General Plan promulgates many policies intended to promote neighborhood compatibility, historic preservation, mobility and transportation, environmental quality, sustainability, and full provision of public services and utilities. All of the General Plan policies were reviewed to identify those applicable to the proposed project and evaluate the project's consistency with those policies.

The General Plan identifies six Focus Areas in the City where improvements and new development tailored to the existing character of the areas are encouraged. The focus areas include major corridors and destinations, new centers of activity around transit stations, and new residential neighborhoods, all of which have the potential to significantly define the City's identity. The General Plan also identifies three Future Focus Areas that are only established in Phases II and III of General Plan implementation.

The project site is located in one of the existing areas, the El Camino Real Focus Area, which extends the entire length of El Camino Real within the City limits. The General Plan vision for El Camino Real is to transform this Focus Area from a series of automobile-oriented strip-malls to a tree-lined, pedestrian- and transit-oriented corridor with a mix of residential and retail uses.

The section of the El Camino Real Focus Area that encompasses the project site is identified as a Community Mixed Use area. The General Plan states that the Community Mixed Use

designation should be implemented consistent with either Community Commercial, Medium Density Residential, or a combination of both. Since the allowable density in the Medium Density Residential designation is 20 to 36 units per gross acre, the proposed project density of approximately 19 units per gross acre would require approval by the City Council, as discussed above. The General Plan states that building design and scale in the focus area should represent the City's historic character, with two- and three-story structures and special attention to articulation and proportion. As discussed and illustrated in the Project Description of this Initial Study, the proposed three-story townhomes would be quite articulated, and the fusion of Monterey and Spanish Mission architectural styles is consistent with the City's historic character.

The project would not conflict with any of the El Camino Real Focus Area Goals and Policies promulgated in Section 5.4.1 of the General Plan. The project would be particularly consistent with the following policies:

El Camino Real Focus Area Policies

- 5.4.1-P2** Allow new development under the Community Mixed Use designation for exclusively residential or commercial uses provided that it meets the minimum requirements for the Medium Density Residential or Community Commercial land use classifications.
- 5.4.1-P9** Residential development should include front doors, windows, stoops, porches, and bay windows or balconies along street frontages.
- 5.4.1-P10** Encourage structured and below-grade, rather than surface, parking in new development, to ensure that space at the ground level is devoted to active uses.
- 5.4.1-P11** Locate parking at the side or rear of parcels and active uses along street frontages.

The General Plan discussion of the El Camino Real Focus Area states that the General Plan Transition Goals and Policies, which are intended to address compatibility between existing and new development, apply throughout the focus area. Those policies, set forth in Section 5.5.2 of the General Plan, were reviewed and no project conflicts or inconsistencies were identified.

A discussion of the project's consistency with the City's Mobility and Transportation goals and policies and Transportation and Demand Management (TDM) goals and policies is presented in Section XVI(f). All other General Plan goals and policies were reviewed and the proposed project would not conflict with any policies. This will be subject to confirmation by City staff and decision makers. The following policies were deemed particularly relevant to the proposed project:

General Land Use Policies

- 5.3.1-P4** Encourage new development that meets the minimum intensities and densities specified in the land use classifications or as defined through applicable Focus Area, Neighborhood Compatibility or Historic Preservation policies of the General Plan.
- 5.3.1-P6** Allow planned development only if it is consistent with General Plan land use density and intensity requirements and provides a means to address unique situations to achieve high community design standards that would otherwise not be feasible.

- 5.3.1-P12 Encourage convenient pedestrian connections within new and existing developments.
- 5.3.1-P29 Encourage design of new development to be compatible with, and sensitive to, nearby existing and planned development, consistent with other applicable General Plan policies.

Residential Land Use Policies

- 5.3.2-P4 Encourage indoor and outdoor private and common spaces as part of all new residential developments, including clustering of units to maximize open space opportunities where appropriate.
- 5.8.3-P8 Require new development to include transit stop amenities, such as pedestrian pathways to stops, benches, traveler information and shelters.

Transit Network Policies

- 5.8.3-P9 Require new development to incorporate reduced onsite parking and provide enhanced amenities, such as pedestrian links, benches and lighting, in order to encourage transit use and increase access to transit services.

Bicycle and Pedestrian Network Policies

- 5.8.4-P7 Require new development to provide sidewalks, street trees and lighting on both sides of all streets in accordance with City standards, including new developments in employment areas.
- 5.8.4-P8 Require new development and public facilities to provide improvements, such as sidewalks, landscaping and bicycling facilities, to promote pedestrian and bicycle use.

Energy Policies

- 5.10.3-P4 Encourage new development to incorporate sustainable building design, site planning and construction, including encouraging solar opportunities.
- 5.10.3-P5 Reduce energy consumption through sustainable construction practices, materials and recycling.

Water Policies

- 5.10.4-P7 Require installation of native and low-water-consumption plant species when landscaping new development and public spaces to reduce water usage.

Safety Policies

- 5.10.5-P5 Regulate development, including remodeling or structural rehabilitation, to ensure adequate mitigation of safety hazards, including flooding, seismic, erosion, liquefaction and subsidence dangers.
- 5.10.5-P6 Require that new development is designed to meet current safety standards and implement appropriate building codes to reduce risks associated with geologic conditions.
- 5.10.5-P7 Implement all recommendations and design solutions identified in project soils reports to reduce potential adverse effects associated with unstable soils or seismic hazards.

- 5.10.5-P11** Require that new development meet stormwater and water management requirements in conformance with State and regional regulations.
- 5.10.5-P15** Require new development to minimize paved and impervious surfaces and promote on-site Best Management Practices for infiltration and retention, including grassy swales, pervious pavement, covered retention areas, bioswales, and cisterns, to reduce urban water run-off .
- 5.10.5-P16** Require new development to implement erosion and sedimentation control measures to maintain an operational drainage system, preserve drainage capacity and protect water quality.
- 5.10.5-P17** Require that grading and other construction activities comply with the Association of Bay Area Governments' Manual of Standards for Erosion and Sediment Control Measures and with the California Stormwater Quality Association (CASQA), Stormwater Best Management Practice Handbook for Construction.
- 5.10.5-P21** Require that storm drain infrastructure is adequate to serve all new development and is in place prior to occupancy.
- 5.10.5-P22** Regulate development on sites with known or suspected contamination of soil and/or groundwater to ensure that construction workers, the public, future occupants and the environment are adequately protected from hazards associated with contamination, in accordance with applicable regulations.
- 5.10.5-P23** Require appropriate clean-up and remediation of contaminated sites.
- 5.10.5-P26** Survey pre-1980 buildings and abate any lead-based paint and asbestos prior to structural renovation and demolition, in compliance with all applicable regulations.
- 5.10.5-P28** Continue to require all new development and subdivisions to meet or exceed the City's adopted Fire Code provisions.
- 5.10.5-P29** Continue to refer proposed projects located within the Airport Influence Area to the Airport Land Use Commission.
- 5.10.5-P30** Review the location and design of development within Airport Land Use Commission jurisdiction for compatibility with the Airport Land Use Compatibility Plan.
- 5.10.5-P32** Encourage all new projects within the Airport Influence Area to dedicate an aviation easement.

Noise Policies

- 5.10.6-P1** Review all land use and development proposals for consistency with the General Plan compatibility standards and acceptable noise exposure levels defined on Table 5.10-1.
- 5.10.6-P2** Incorporate noise attenuation measures for all projects that have noise exposure levels greater than General Plan "normally acceptable" levels, as defined on Table 5.10-1.
- 5.10.6-P3** New development should include noise control techniques to reduce noise to acceptable levels, including site layout (setbacks, separation and shielding), building treatments (mechanical ventilation system, sound-rated windows,

solid core doors and baffling) and structural measures (earthen berms and sound walls).

- 5.10.6-P4** Encourage the control of noise at the source through site design, building design, landscaping, hours of operation and other techniques.

Zoning Ordinance

Although the project site is currently zoned Light Industrial (ML), the proposed project includes a request to rezone the property to a Planned Development (PD) district. The PD district is intended to accommodate development that is compatible with the existing community and achieves one of the following:

- Integrates uses that are not permitted to be combined in other zone districts;
- Utilizes imaginative planning and design concepts that would be restricted in other zone districts;
- Subdivides land or air space in a manner that results in units not having the required frontage on a dedicated public street; or
- Creates a community ownership project. (Santa Clara City Code Section 18.06.010 defines “community ownership” as (i) a joint ownership of land and/or improvements combined with a separate ownership or exclusive right of occupancy of a unit or (ii) an investment apartment complex, which is defined as having separate ownership of at least two contiguous dwelling units per each ownership with all dwelling units to be rental units.

Any and all uses are permitted in the PD district, but they are set by the approved development plan, and any change in use requires a rezoning. The primary requirement for a PD district is a development plan, which stipulates the land use but also the development standards, such as height limits, setback requirements, onsite parking, and landscaping. The development standards must provide for a harmonious, integrated project of sufficient unity and architectural quality to justify the mixture of normally separated uses or to justify certain exceptions to the standard regulations. The density must not substantially deviate from that allowed under the General Plan.

The proposed project is not a community ownership project; it would be a single-lot subdivision with townhome condominiums. Therefore, PD regulations pertaining to community ownership projects and those pertaining to investment apartments would not apply to the project. As discussed above, the density is consistent with the General Plan land use designation assigned to the site. Assuming approval of the planned development plan, the project would conform to the applicable development standards for building heights, setbacks, parking requirements, etc. Therefore, the proposed project would not conflict with the City’s zoning ordinance.

Based on the General Plan and Zoning Ordinance review summarized above, the proposed project would not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect. Consistency with other environmental planning documents is also addressed elsewhere in this Initial Study. For example, the project’s consistency with the Comprehensive Land Use Plan for San Jose Airport is discussed in Section VIII, Hazards and Hazardous Materials, and in Section XII, Noise.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- c) *Conflict with any applicable habitat conservation plan or natural community conservation plan?*

☐ ☐ ☐ ☒

Explanation: As previously discussed in Section IV(F), there is no adopted habitat conservation plan (HCP) applicable to the City of Santa Clara. Although the City is located adjacent to the area covered by the *Valley Habitat Conservation Plan*, it would not apply to the proposed project.

XI. MINERAL RESOURCES — *Would the project:*

- a) *Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?*

☐ ☐ ☐ ☒

Explanation: No regionally significant mineral deposits have been mapped on or in the vicinity of the project site. The site is within a large area classified as Mineral Resource Zone MRZ-1 by the California Department of Conservation's Division of Mines and Geology (DMG).⁴³ The MRZ-1 designation is assigned to areas where sufficient data exists for a determination that no significant mineral deposits exist, or where it is judged that there is little likelihood for their presence. Furthermore, the site is in a fully developed, urbanized area where mineral extraction would not be practical. Therefore, the project would not have an effect on the availability of mineral resources.

- b) *Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?*

☐ ☐ ☐ ☒

Explanation: The Santa Clara General Plan does not identify any local mineral resources, and the Santa Clara General Plan EIR reports that the City is not known to support significant aggregate resources or mineral resources of any other type.

⁴³ California Department of Conservation, Division of Mines and Geology, Generalized Mineral Land Classification Map of the South San Francisco Bay Production-Consumption Region (Plate 1 of 29), 1996.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

XII. NOISE — *Would the project result in:*

- a) *Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?*

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Explanation:

Introduction to Noise Descriptors

Noise is defined as unwanted sound. Airborne sound is a rapid fluctuation of air pressure above and below atmospheric pressure. Sound levels are usually measured and expressed in decibels (dB) with 0 dB corresponding roughly to the threshold of hearing.

Most of the sounds that we hear in the environment do not consist of a single frequency, but rather a broad band of frequencies, with each frequency differing in sound level. The intensities of each frequency add together to generate a sound. The method commonly used to quantify environmental sounds consists of evaluating all of the frequencies of a sound in accordance with a weighting that reflects the facts that human hearing is less sensitive at low frequencies and extreme high frequencies than in the mid-range frequency. This is called "A" weighting, and the decibel level so measured is called the A-weighted sound level (dBA). In practice, the level of a sound source is conveniently measured using a sound level meter that includes an electrical filter corresponding to the A-weighting curve. Typical A-weighted levels measured in the environment and in industry are shown in Table N-1 for different types of noise.

Although the A-weighted noise level may adequately indicate the level of environmental noise at any instant in time, community noise levels vary continuously. Most environmental noise includes a conglomeration of noise from distant sources that create a relatively steady background noise in which no particular source is identifiable. To describe the time-varying character of environmental noise, the statistical noise descriptors, L_{01} , L_{10} , L_{50} , and L_{90} , are commonly used. They are the A-weighted noise levels equaled or exceeded during 1 percent, 10 percent, 50 percent, and 90 percent of a stated time period. A single number descriptor called the L_{eq} is also widely used. The L_{eq} is the average A-weighted noise level during a stated period of time.

In determining the daily level of environmental noise, it is important to account for the difference in response of people to daytime and nighttime noises. During the nighttime, exterior background noises are generally lower than the daytime levels. However, most household noise also decreases at night and exterior noise becomes very noticeable. Further, most people sleep at night and are very sensitive to noise intrusion. To account for human sensitivity to nighttime noise levels, a descriptor, DNL (day/night average sound level), was developed. The DNL divides the 24-hour day into the daytime of 7:00 AM to 10:00 PM and the nighttime of 10:00 PM to 7:00 AM. The nighttime noise level is weighted 10 dB higher than the daytime noise level.

The Community Noise Equivalent Level (CNEL) is another 24-hour average which includes both an evening and nighttime weighting, adding 5 decibels to the average noise levels during the evening and 10 decibels to the average noise levels during the nighttime period. CNEL and DNL descriptors are similar and are often used interchangeably. Noise standards established in the Santa Clara General Plan are expressed using the CNEL descriptor, which is therefore used in the analysis of the proposed townhome project's potential noise impacts.

Table N-1
Typical Noise Levels

Noise Level (dBA)	Outdoor Activity	Indoor Activity
90+	Gas lawn mower at 3 feet, jet flyover at 1,000 feet	Rock Band
80-90	Diesel truck at 50 feet	Loud television at 3 feet
70-80	Gas lawn mower at 100 feet, noisy urban area	Garbage disposal at 3 feet, vacuum cleaner at 10 feet
60-70	Commercial area	Normal speech at 3 feet
40-60	Quiet urban daytime traffic at 300 feet	Large business office, dishwasher next room
20-40	Quiet rural, suburban nighttime	Concert hall (background), library, bedroom at night
10-20		Broadcast/recording studio
0	Lowest threshold of human hearing	Lowest threshold of human hearing

Source: (modified from Caltrans Technical Noise Supplement, 2011)

Noise levels that are generally considered acceptable or unacceptable can characterize various environments. Lower levels are expected in rural or suburban areas than would be expected in commercial or industrial zones. Nighttime ambient levels in urban environments are about 7 decibels lower than the corresponding average daytime levels. The day-to-night noise level difference in rural areas away from roads and other human activity can be considerably less. Noise levels above 45 dBA at night can result in the onset of sleep interference.⁴⁴ At 70 dBA, sleep interference becomes considerable.

City of Santa Clara Noise Standards

Section 5.10.6, Noise Goals and Policies, of the Environmental Quality Element to the *City of Santa Clara 2010-2035 General Plan* establishes interior and exterior noise standards that provide a basis for evaluating the proposed project's compatibility with the noise environment on the site. The standards state that all outdoor land uses are compatible at noise exposures of less than 60 dB CNEL and all indoor uses are compatible at less than 45 dB CNEL. The noise analysis prepared for the project assumes that these noise limits are 60 dB or less and 45 dB or less, respectively.

⁴⁴ U.S. Environmental Protection Agency, *Community Noise*, 1971.

State of California Standards

The California Residential Code (CRC) is applicable to attached single-family “row housing” structures that are no more than three stories high, which pertains to the proposed three-story townhomes. Although the CRC does not establish an interior noise exposure limit nor limit exterior-to-interior noise transmission, the standards do specify minimum noise insulation ratings for common partitions separating different dwelling units, as well as partitions separating dwelling units from common spaces. The standards specify that common walls must have a design Sound Transmission Class (STC) rating of 45 or higher. The noise analysis presented herein does not include an evaluation of the interior partitions because detailed plans for the interior partitions of the project were not available for review during preparation of the noise study.

Existing Conditions

The existing noise environment at the project site is controlled primarily by vehicular traffic sources on the De La Cruz on-ramp to El Camino Real, located immediately to the south, and operations on the Caltrain and Union Pacific Railroad line that abuts the site’s northeastern boundary. Although the site is less than a mile from San Jose International Airport, it is outside the 65-, 70-, and 75-dBA CNEL noise contours around the airport.⁴⁵

CalTrans data indicate that El Camino Real carries an existing Average Daily Traffic (ADT) volume of 24,100 vehicles west of Alviso Street and 18,100 vehicles ADT east of Alviso Street.⁴⁶ The 6,000-vehicle difference between these two segments is attributed to the interchange with De La Cruz Boulevard. Assuming that half of this traffic enters onto El Camino Real from De La Cruz Boulevard and the remaining half exits El Camino Real via Lewis Street and onto De La Cruz Boulevard from the west, a volume of 3,000 vehicles ADT travels on the ramp that is immediately adjacent to the south of the site, forming a significant source of noise exposure at the site.

Caltrain operates 92 trains per day, with 46 southbound trains passing from 6:19 a.m. to 1:25 a.m., and 46 northbound trains passing from 4:35 a.m. to 10:35 p.m. Although freight train schedules vary from day to day depending upon the demand for goods and services, during two days of noise measurements, the noise consultant logged seven passing freight trains, occurring between 9:30 a.m. and 12:44 a.m. on the first day and between similar hours on the second day.

Existing noise levels at the site were measured by the acoustical consulting firm of Edward L. Pack Associates, Inc.⁴⁷ Continuous recordings of the sound levels were made with calibrated sound meters at two locations, shown on Figure N-1. Location 1 was near the northeastern site boundary, about 90 feet from the centerline of the Caltrain/UPRR tracks. The sound meter was placed on top of a trailer 15 feet above the ground to achieve an unshielded view to the railroad. Location 2 was 115 feet from the centerline of El Camino Real at the intersection with Alviso Street. This sound meter was placed where El Camino Real and the connector ramp are at-grade, corresponding to the ground floor elevation of the proposed townhomes. The noise level

⁴⁵ City of Santa Clara, *2010-2035 General Plan Integrated Final EIR*, Figure 7.10-5: Airport Noise Contours (2022), January 2011.

⁴⁶ California Department of Transportation (Caltrans), Traffic Data Branch, 2013 All Traffic Volumes on CSHS [California State Highway System], accessed July 13, 2015 at: <http://www.dot.ca.gov/hq/traffops/saferesr/trafdata/2013all/Route82-86.html>.

⁴⁷ Edward L. Pack Associates, Inc., Noise and Vibration Assessment Study for the Planned “Alviso Village” Townhouse Development, Alviso Street, Santa Clara, Project No. 46-078, June 19, 2015.

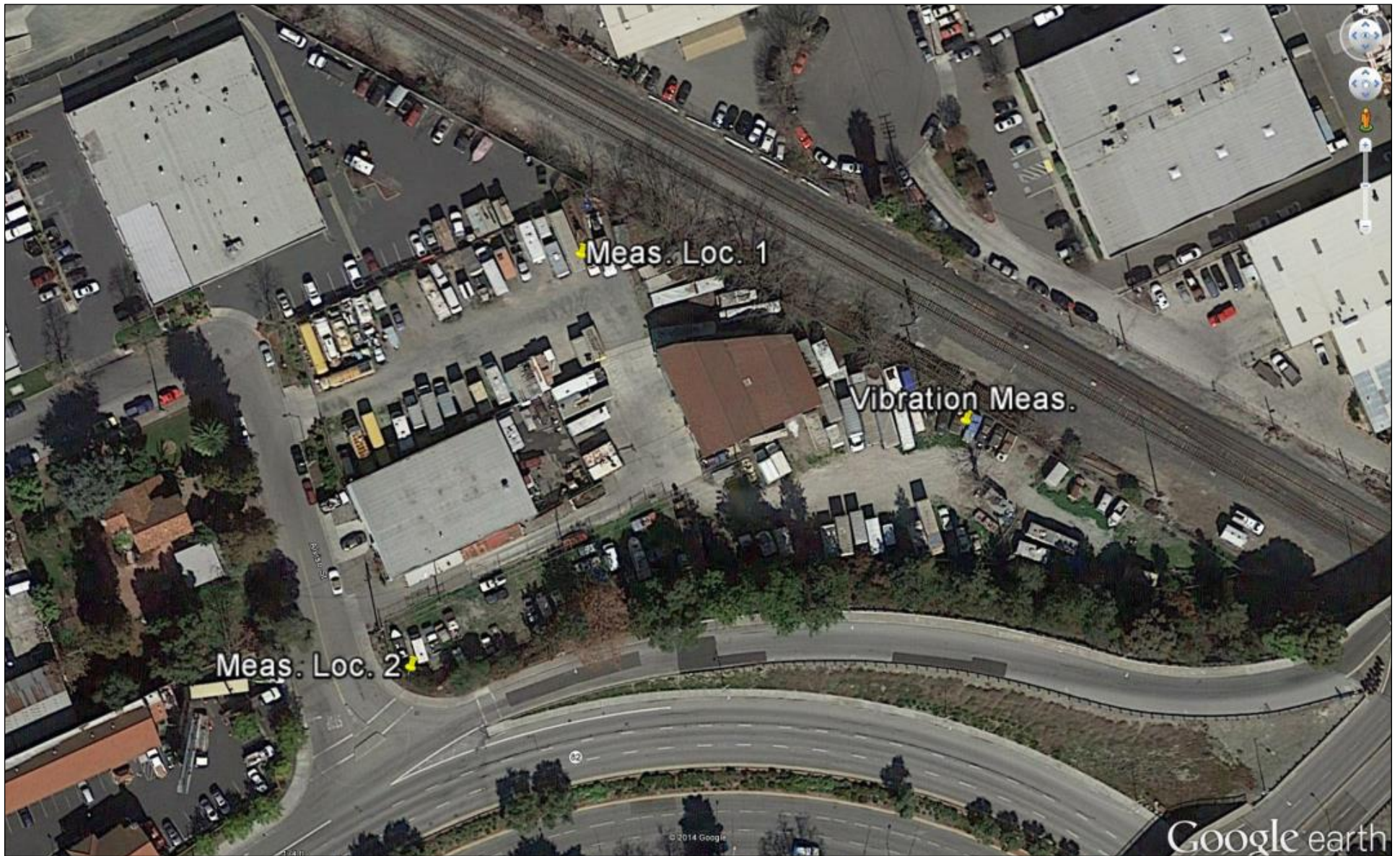


Figure N-1

Sound and Vibration Measurement Locations

Source: Edward L. Pack Associates, Inc.

recordings were made on October 21-23, 2014 for a continuous period of 48 hours and included representative hours of the daytime, evening, and nighttime periods of the CNEL index.

Measurements of L_{eq} and the L_{01} , L_{10} , L_{50} , and L_{90} noise descriptors were made, and the L_{eq} values were used to calculate the CNEL. On the first day of measurements the L_{eq} at Location 1 ranged from 59.6 to 67.2 dBA during the daytime, from 61.0 to 63.2 dBA during the evening, and from 51.9 to 64.9 dBA at night. On the second day, the L_{eq} ranged from 60.3 to 67.6 dBA during the daytime, from 61.8 to 63.7 dBA during the evening, and from 47.9 to 64.6 dBA at night.

At Location 2, the L_{eq} ranged from 62.0 to 65.1 dBA during the daytime, from 60.3 to 62.5 dBA during the evening, and from 52.0 to 62.3 dBA at night on the first day of measurements. On the second day, the daytime L_{eq} ranged from 62.1 to 66.0 dBA, the evening L_{eq} ranged from 59.7 to 62.2 dBA, and the nighttime L_{eq} ranged from 50.4 to 62.7 dBA.

The L_{eq} values were converted to CNEL values. At measurement Location 1, 90 feet from the centerline of the railroad tracks, the noise exposures were calculated to be 68 dB CNEL on the first day and 67 dB CNEL on the second day. They were calculated to be 66 and 65 dB CNEL, respectively, at Location 2, near El Camino Real. At the minimum planned building setback of 55 feet from the tracks, the noise exposures were calculated to be 71 and 70 dB CNEL.

The measured noise levels were adjusted to account for the setback distance from the measurement location to the building facades at each of the three floor elevations using methods established by the Highway Research Board⁴⁸ and Wyle Laboratories.⁴⁹ The resulting are noise levels as they would be experienced at the different project building façades are shown on Figure N-2. The noise values were also calculated for the area of the site proposed for an outdoor area of common open space along the south side of the site, where existing noise exposures range from 55 to 59 dB CNEL.

Impact of Existing Noise Levels on Future Residents

The noise analysis assumes that the future exterior noise environment at the project site will continue to result primarily from vehicle traffic immediately south of the site and rail traffic immediately north of the site. The 2013 ADT volumes measured by CalTrans, discussed above, were compared to historic data from 1993 to derive a growth rate for future traffic. Because the volume declined from an ADT of 28,500 vehicles in 1993 to 24,100 vehicles in 2013, representing a substantial reduction, the noise consultant made a conservative assumption that future traffic volumes on El Camino Real would remain constant. The consultant also noted that future traffic volume on El Camino Real would need to increase by 15 percent, to 27,715 vehicles ADT, to cause a 1-decibel increase in the noise exposures.

With respect to railroad noise, no future operational data for Caltrain was available, but the Santa Clara General Plan projects an increase in future freight operations of 2 to 3 percent per year through 2033. The noise analysis therefore assumed a 2-dB increase in total railroad noise over the next 20 years, corresponding to a growth rate of 2 percent per year.

Factoring in these adjustments, the projected future outdoor noise exposure levels at the various building façade locations were calculated; they are shown on Figure N-2. Under future conditions, the noise exposures are expected to increase to 73 and 72 dB CNEL at the north façade of Building 5, set back 55 feet from the adjacent railroad tracks. Noise exposures at the outdoor common open space area along the south side of the site are projected to increase by 1

⁴⁸ Highway Research Board, *Highway Noise - A Design Guide for Highway Engineers*, Report 117, 1971.

⁴⁹ Wyle Laboratories, *Assessment of Noise Environments Around Railroad Operations*, Report WCR 73-5, July 1971.



Figure N-2

Existing and Future Exterior Noise Exposures

Source: Edward L. Pack Associates, Inc.

dB, ranging from 56 to 60 dB CNEL, within the acceptable range established by the Santa Clara General Plan. Elsewhere on the site, as shown on Figure N-2, future noise exposures throughout the site would continue to exceed the 60-dB CNEL Santa Clara standard for outdoor noise levels in residential areas. However, according to Edward L. Pack Associates, the noise consultant for the project, this standard is applicable to the common open space (where the standard is met), but not to the private deck and porch spaces for each townhome. Therefore, the outdoor noise exposure levels for project residents would be a *less-than-significant impact*, and no mitigation is required. However, a recommended security/privacy wall is included in Mitigation Measure N-1, below, that would further reduce onsite noise levels.

To estimate future interior noise levels in the proposed townhomes, a 15-dB reduction was applied to the exterior noise exposures to account for the attenuation provided by the building shell under an annual-average condition. The annual-average condition assumes the installation of standard dual-pane thermal insulating windows and glass doors (with a minimum Sound Transmission Class of 28) that are open up to 50 percent of the time for natural ventilation. The resulting sound exposure levels are shown on Figure N-3.

The highest noise levels would occur in Building 5, located adjacent to the Caltrain/UPRR tracks, where the noise exposures were calculated to be 56 and 58 dB CNEL under current (after completion of the project) and future conditions, respectively. The more southerly units in Building 4, near the elevated on-ramp to El Camino Real, would also experience unacceptably high noise exposures of 51 dB CNEL in the near-term and 53 dB CNEL with the addition of future growth. In the most impacted living spaces of the west and south facades of Building 2 closest to El Camino Real, the noise exposures were calculated to be 51 dB CNEL under both current and future conditions. As shown on Figure N-3, interior noise exposures at numerous locations would exceed the 45 dB CNEL interior limit established in the Santa Clara General Plan. This would be a *potentially significant impact*. Implementation of the following mitigation measures would reduce the impacts related to exterior and interior noise exposures to a less-than-significant level.

Mitigation Measure N-1: To achieve interior noise exposures in compliance with the 45-dB Community Noise Equivalent Level (CNEL) standard of the City of Santa Clara, the following design features shall be incorporated into the project:

- a) All townhomes shall be provided with a suitable form of forced-air mechanical ventilation, as determined by the Santa Clara Planning and Inspection Department, so that windows can be kept closed at the occupants' discretion to control interior noise and achieve the interior noise standards. All townhomes shall be provided with operable double-glazed windows.
- b) All windows shall be installed in an acoustically-effective manner so that sliding window panels form an air-tight seal when in the closed position. Window frames shall be caulked to the wall opening around their entire perimeter with a non-hardening caulking compound to prevent sound infiltration.
- c) Sound-rated windows and doors with a Sound Transmission Class (STC) rating of STC 28 or better shall be provided at the townhome façades designated in green on Figure N-4.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- d) Sound-rated windows and doors with an STC rating of STC 32 or better shall be provided at the townhome façades designated in blue on Figure N-4.
- e) Sound-rated windows and doors with an STC rating of STC 36 or better shall be provided at the townhome façades designated in red on Figure N-4.

b) *Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?*

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Explanation: The Caltrain and Union Pacific Railroad (UPRR) tracks located less than 35 feet from the project site boundary represent a common source of groundborne vibration. Depending on severity, groundborne vibration has the potential to damage structures and cause annoyance to people. Vibration-related damage can be structural, such as cracking of floor slabs, foundations, columns, beams, or walls, or cosmetic architectural damage, such as cracked plaster, stucco, or tile. Disturbance to people can range from barely perceptible vibration to interference with sleep. Due to the seismically active nature of the San Francisco Bay Area, an experience of heavy vibration could provoke fear or anxiety about an earthquake.

Ground vibration that may be imperceptible to people can also cause secondary effects, such as the rattling of dishes in a cabinet. Reoccurring primary and secondary vibration effects often lead people to believe that the vibration is damaging their home, although vibration levels are well below minimum thresholds for damage potential.

Because the City of Santa Clara does not have quantifiable standards for vibration in residential areas, the vibration analysis performed by Edward L. Pack Associates used the criteria established by the Federal Transit Administration (FTA). For residences near rail lines traveled by more than 70 trains per day, which is considered frequent, the FTA recommends a limit of 72 decibels of vibration (VdB) inside the affected residences. With 92 Caltrain trains and one to three freight trains typically passing the project site each day, this rail traffic is considered frequent by the FTA, and therefore, the 72-VdB threshold was applied in the vibration analysis of the project.



Figure N-3

Existing and Future Interior Noise Exposures

Source: Edward L. Pack Associates, Inc.



Figure N-4

Required Window and Glass Door Sound Transmission Class (STC) Ratings

Source: Edward L. Pack Associates, Inc.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Existing vibration levels at the site were measured by the noise consultant using a PCB Piezotronics 393A03 accelerometer and a Larson Davis 2900 Dual Channel Real Time analyzer. The measurements were made at a location 55 feet from the centerline of the Caltrain tracks, corresponding to the proposed setback of Building 5 from the tracks. Vibration levels were measured at frequencies from 8 Hertz (Hz) to 80 Hz in order to calculate a total vibration level associated with train passbys. The measurement results for six passing Caltrain trains and one freight train are shown in Table N-2. As shown in the table, groundborne vibration levels from the train passbys ranged from 62 to 75 VdB. The single level of 75 VdB resulted by a Caltrain passby; the noise consultant noted that 75 VdB is somewhat high for a commuter train (exceeding the vibration generated by the freight train by 12 VdB), and concluded that this particular train likely had wheel maintenance issues.

Using FTA adjustment methodologies, the recorded measurements were used to calculate the approximate vibration levels in various floor elevations of the proposed townhomes and assess the impact of groundborne vibration on future project residents. The adjustments include a has coupling loss factors of 8 to 9 VdB for large residential buildings, a 6-dB increase for floor resonances, and a 2-dB reduction per floor for each floor above the first floor. The resulting interior vibration levels are presented in Table N-3. The outlier Caltrain discussed above resulted in a ground-floor vibration level of 72 VdB at the most affected residence, within the acceptable vibration range. All other projected interior vibration levels were well within the 72-VdB threshold, as shown in Table N-3. Therefore, future project residents would experience a *less-than-significant impact* related to exposure to groundborne vibration.

- c) *A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?*

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Explanation: The only permanent sources of noise that would result from the proposed project would be from operation of heating, ventilation, and air conditioning (HVAC) units and from increased vehicle traffic on the local roadway network generated by project residents, visitors, and delivery/service vehicles. The HVAC sources are assumed to be insignificant.

With respect to the traffic sources, a doubling of traffic volumes is generally required before an increase in ambient noise will be perceived by the average person, corresponding to a noise level increase of 3 dB. As discussed in Section XII(a), above, El Camino Real east of Alviso Street has an ADT of 18,100 vehicles, with a probable volume of 3,000 vehicles traveling on the ramp from De La Cruz Boulevard that is immediately adjacent to the southern boundary of the site. As discussed in Section XVI(a), Traffic and Transportation, the proposed townhome project is expected to generate 232 daily vehicle trips, representing a tiny fraction of existing traffic in the immediate vicinity. Therefore, the noise that would be generated by the project would have no effect on the ambient noise levels at the site.

ON-SITE GROUND-BORNE VIBRATION LEVELS, VdB																	
Train type	Direction	Dist. ft.	Freq. (Hz)												TOTAL	Setback Dist. ft.	Setback VdB
			8	10	12.5	16	20	25	31.5	40	50	63	80				
CalTrain	SB1	48	48.1 64565.4	56.8 478630.1	63.0 1995262.3	57.2 524807.5	60.4 1096478.2	65.0 3162277.7	63.3 2137962.1	62.5 1778279.4	57.4 549540.9	50.1 102329.3	44.2 26302.7	71 11916435.5	48	71	
CalTrain	SB2	48	52.8 190546.1	48.4 69183.1	51.8 151356.1	55.8 380189.4	56.1 407380.3	58.8 758577.6	60.0 1000000.0	58.4 691831.0	54.4 275422.9	49.0 79432.8	41.7 14791.1	66 4018710.3	48	66	
CalTrain	SB3	48	47.3 53703.2	61.2 1318256.7	55.1 323593.7	58.0 630957.3	62.8 1905460.7	63.5 2238721.1	62.1 1621810.1	63.1 2041737.9	56.1 407380.3	49.7 93325.4	44.3 26915.3	70 10661861.9	48	70	
CalTrain	NB1	62	35.6 3630.8	46.6 45708.8	54.5 281838.3	66.3 4265795.2	64.5 2818382.9	70.7 11748975.5	69 7943282.3	63.5 2238721.1	58 630957.3	50.1 102329.3	41.4 13803.8	75 30093425.5	62	75	
CalTrain	SB4	48	23.9 245.5	32 1584.9	47.2 52480.7	54.9 309029.5	55.2 331131.1	53.2 208929.6	54.3 269153.5	51 125892.5	50.6 114815.4	44.1 25704.0	39.6 9120.1	62 1448086.8	48	62	
FREIGHT	NB	62	41.9 15488.2	46.9 48977.9	56.3 426579.5	53.9 245470.9	53.7 234422.9	53.9 245470.9	54.4 275422.9	52.5 177827.9	49.6 91201.1	47.4 54954.1	47.3 53703.2	63 1869519.4	62	63	
CalTrain	SB5	48	34.2 2630.3	45.2 33113.1	46.6 45708.8	57.1 512861.4	59.2 831763.8	64.8 3019951.7	64.7 2951209.2	64.5 2818382.9	58.7 741310.2	51.4 138038.4	45.8 38018.9	70 11132988.8	48	70	

Table N-2

Ground-Borne Vibration Levels at the Site (VdB)

Source: Edward L. Pack Associates, Inc.

INTERIOR FLOOR VIBRATION LEVELS, VdB																			
Train type	Direction	Dist. ft.	Freq. (Hz)											TOTAL	Setback Dist. ft.	Setback VdB	Residential Interior		
			8	10	12.5	16	20	25	31.5	40	50	63	80				1st Floor	2nd Floor	3rd Floor
CalTrain	SB1	48	45.6 36307.8	51.8 151356.1	57.0 501187.2	49.2 83176.4	51.9 154881.7	56.0 398107.2	54.3 269153.5	53.5 223872.1	48.9 77624.7	42.1 16218.1	36.7 4677.4	63 1916562.1	48	63	69	67	65
CalTrain	SB2	48	50.3 107151.9	43.4 21877.6	45.8 38018.9	47.8 60256.0	47.6 57544.0	49.8 95499.3	51.0 125892.5	49.4 87096.4	45.9 38904.5	41.0 12589.3	34.2 2630.3	58 647460.6	48	58	64	62	60
CalTrain	SB3	48	44.8 30199.5	56.2 416869.4	49.1 81283.1	50.0 100000.0	54.3 269153.5	54.5 281838.3	53.1 204173.8	54.1 257039.6	47.6 57544.0	41.7 14791.1	36.8 4786.3	62 1717678.5	48	62	68	66	64
CalTrain	NB1	62	33.1 2041.7	41.6 14454.4	48.5 70794.6	58.3 676083.0	56 398107.2	61.7 1479108.4	60 1000000.0	54.5 281838.3	49.5 89125.1	42.1 16218.1	33.9 2454.7	66 4030225.4	62	66	72	70	68
CalTrain	SB4	48	21.4 138.0	27 501.2	41.2 13182.6	46.9 48977.9	46.7 46773.5	44.2 26302.7	45.3 33884.4	42 15848.9	42.1 16218.1	36.1 4073.8	32.1 1621.8	53 207522.9	48	53	59	57	55
FREIGHT	NB	62	39.4 8709.6	41.9 15488.2	50.3 107151.9	45.9 38904.5	45.2 33113.1	44.9 30903.0	45.4 34673.7	43.5 22387.2	41.1 12882.5	39.4 8709.6	39.8 9549.9	55 322473.3	62	55	61	59	57
CalTrain	SB5	48	31.7 1479.1	40.2 10471.3	40.6 11481.5	49.1 81283.1	50.7 117489.8	55.8 380189.4	55.7 371535.2	55.5 354813.4	50.2 104712.9	43.4 21877.6	38.3 6760.8	62 1462094.1	48	62	68	66	64

Table N-3

Projected Interior Floor Vibration Levels (VdB)

Source: Edward L. Pack Associates, Inc.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- d) *A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?*

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Explanation: Temporary noise would be generated during demolition of the existing warehouses and pavements, during site clearing and grading, and during construction of the proposed project. These activities are expected to occur over a period of approximately 24 months.

Construction activities generate considerable amounts of noise, especially during demolition and earth moving activities when heavy equipment is used. The highest maximum noise levels generated by project demolition and construction activities would typically range from about 90 to 95 dBA at a distance of 50 feet from the noise source. Typical hourly average construction generated noise levels are about 81 dBA to 88 dBA measured at a distance of 50 feet from the center of the site during busy construction periods (e.g., earth moving equipment, impact tools, etc.). Hourly average noise levels generated by the construction of residential units would range from about 65 dBA to 88 dBA measured at a distance of 50 feet depending on the amount of activity at the site. Construction-generated noise levels drop off at a rate of about 6 dBA per doubling of distance between the source and receptor. Shielding by buildings or terrain often results in lower construction noise levels at more distant receptors.

Although the Santa Clara City Code prohibits the creation of excessive noise or vibration, establishing specific noise limits for different types of offsite locations (e.g., single-family residential, multi-family residential, commercial, etc.), construction activities that occur during allowed hours are exempt from this prohibition. City Code Section 9.10.230 establishes permitted construction hours as 7:00 a.m. to 6:00 p.m. on weekdays, and from 9:00 a.m. to 6:00 p.m. on non-holiday Saturdays. Construction is prohibited on Sundays and stipulated standard holidays.

Noise-sensitive receptors in the vicinity of the project include users of Larry J. Marsalli Park, located about 180 feet south of the project site, and residents on Civic Center Drive and to the south of the park. In addition, patrons of the Mission Inn, located about 150 feet west of the site, would be considered noise-sensitive receptors. While offsite residents and visitors could experience disturbance from elevated noise levels during project demolition and construction activities, which would be a *potentially significant impact*, implementation of the following mitigation measures would ensure that short-term construction impacts associated with the proposed project would be mitigated to a less-than-significant level.

Mitigation Measure N-2: Pursuant to the City Code, noise-generating construction activities shall be limited to the hours of 7:00 a.m. to 6:00 p.m. Monday through Friday and 9:00 a.m. to 6:00 p.m. on Saturdays. Construction shall be prohibited on Sundays and holidays.

Mitigation Measure N-3: The project sponsor shall require the construction contractor to equip all construction equipment driven by internal combustion engines with intake and exhaust mufflers which are in good condition, appropriate for the equipment, and no less effective

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

than those originally installed by the manufacturer. The manufacturers' noise abatement features, such as mufflers, engine covers, and engine vibration isolators, shall be intact and operational. All construction equipment shall be inspected weekly to ensure proper maintenance and presence of noise control devices (e.g., mufflers and shrouding, etc.). Unnecessary idling of internal combustion engines shall be strictly prohibited.

Mitigation Measure N-4: Wherever possible, hydraulic tools shall be used instead of pneumatic impact tools. "Quiet" air compressors and other stationary noise sources shall be utilized when appropriate technology is available. Construction staging areas, maintenance yards, air compressors, portable power generators, and other construction-oriented operations shall be located as far as reasonably possible from noise-sensitive receptors.

- e) *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?*

☐ ☐ ☒ ☐

Explanation: The project site is located within the Airport Influence Area (AIA) of Norman Y. Mineta San Jose International Airport, which is located about 3,500 feet (0.66 mile) northeast of the project site; the site therefore falls within the planning area for the Comprehensive Land Use Plan (CLUP) for the airport adopted by the Santa Clara County Airport Land Use Commission (ALUC).⁵⁰ The CLUP establishes land use compatibility criteria for evaluating the compatibility of existing and proposed land uses within the AIA. The standards focus on the three areas of ALUC responsibility: aircraft noise, the control of objects in navigable airspace, and the safety of persons on the ground and in aircraft.

With respect to noise compatibility, the CLUP establishes noise contours on noise exposure maps, based on current and forecast aircraft operations and existing runway configurations. The maps were developed using the Federal Aviation Administration's (FAA) Integrated Noise Model, Version 6.0. Projected Year 2022 noise exposure contours of 65, 70, and 75 dB CNEL were calculated and mapped around the airport. The proposed project site is well outside all three of the mapped noise exposure contours.⁵¹

The CLUP references Santa Clara General Plan Noise Policy 25, which states: "Prohibit any significant new residential development in the adverse noise environment created by San Jose International Airport (65 CNEL and over)." That policy was from the 2000-2010 General Plan, which has been replaced by the 2010-2035 General Plan. The current General Plan does not carry over Noise Policy 25; instead, it adopts Noise Policy 5.10.6-P8, which states: "Continue to encourage safe and compatible land uses within the Norman Y. Mineta International Airport

⁵⁰ Santa Clara County Airport Land Use Commission, *op. cit.*

⁵¹ Santa Clara County Airport Land Use Commission, *op. cit.*, Figure 5: 2022 Aircraft Noise Contours.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Noise Restriction Area.” Because the project site lies outside all three noise exposure contours mapped in the CLUP, it is outside the airport’s Noise Restriction Area. Therefore, the proposed townhome development would not conflict with the CLUP and the project would have a *less-than-significant impact* related to exposure of people to airport noise.

- f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels? ☐ ☐ ☐ ☒

Explanation: There are no private airstrips in the vicinity of the project.

XIII. POPULATION AND HOUSING — Would the project:

- a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? ☐ ☐ ☒ ☐

Explanation: The proposed project would directly generate population growth through the development of 40 new townhomes. Per City Code Chapter 17.35.010, “Average density” shall mean the average number of persons per household, as established by City Council resolution, which is currently set at 2.24 persons per household for multiple-family dwellings and 2.90 persons per household for single-family dwellings. Applying this average household size to the project, the proposed townhomes would generate a population of approximately 89 persons.

The approximately 2.1-acre site has a land use designation of Community Mixed Use, which allows a density of up to 36 units per acre. Thus, under the General Plan, the site could be developed with up to 74 units, substantially more than the number of units currently proposed. Therefore, the growth in population that would occur with implementation of the proposed project was planned for in the General Plan, and the impacts of this growth were previously evaluated in the General Plan EIR. In addition, the project would constitute infill development within a developed urban area, and new roads and infrastructure would not be extended into an undeveloped area. The project would therefore not cause a new impact related to population growth not already evaluated the General Plan EIR.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

☐ ☐ ☐ ☒

Explanation: The project site does not contain any residential structures. Therefore, the project would not demolish or otherwise remove any existing housing units.

- c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

☐ ☐ ☐ ☒

Explanation: See Section XIII(b), above.

XIV. PUBLIC SERVICES - Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:

- a) Fire protection?

☐ ☐ ☒ ☐

Explanation: Fire response to the project site would be provided by the Santa Clara Fire Department (SCFD). The SCFD has ten fire stations interspersed throughout the City, equipped with eight engines, two trucks, one rescue/light unit, three ambulances, one hazardous materials unit, and one command vehicle. The Department is staffed by 120 full-time equivalent (FTE) staff in the Fire Suppression Division and an additional 14 FTE in the Fire Prevention Division. There are 44 firefighters in the Volunteer Reserve Division.

The target Fire Department staffing ratio established by City policy is 1.5 paid fire personnel per 1,000 residents. The current firefighter-to-service population ratio is 1.26 firefighters per 1,000 population, disregarding temporary spikes in service population that occur during events at Levi Stadium. The Department is currently recruiting and hiring new firefighters, which will improve the staffing ratio in 2016.⁵²

Fire Station No. 1, located at 777 Benton Street, would provide first response to the project in the event of a fire or medical emergency. The estimated response time to the site is less than 3 minutes.⁵³ Station No. 1, co-located with the SCFD headquarters, is located about 1,500 feet (or about 0.58 mile travel distance via surface streets) south of the project. Fire response time to the site would be well within the 3-minute response time goal established in the General Plan.

⁵² John D. Madden, Deputy Fire Chief, Santa Clara Fire Department, personal communication, October 13, 2015.

⁵³ *Ibid.*

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The General Plan EIR found that new commercial and residential development and the associated population growth allowed under the 2010-2035 General Plan would result in an increased demand for fire and emergency medical response services, but existing facilities would have the capacity to absorb additional fire personnel without expanding the existing fire stations. Therefore, there would be no construction activities associated with the provision of new fire and life safety services and no associated construction-related effects. The proposed project is consistent with the land use assumed for the site in the General Plan and would result in an on-site population well under that envisioned in the General Plan. Therefore, the project's potential impact on fire protection services was already disclosed in the General Plan EIR, and no further analysis is necessary.

b) *Police protection?*

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Explanation: Police protection would be provided to the project by the Santa Clara Police Department (SCPD), which has a force of 147 sworn officers supported by 64 civilian employees and approximately 23 reserve officers, resulting in a staffing ratio of 1.2 sworn officers per 1,000 residents.⁵⁴ The Department operates out of two stations: the headquarters located at 601 El Camino Real, approximately 1,500 feet (0.28 mile) southeast of the project site, and a substation located at 3992 Rivermark Parkway.

In 2014 the SCPD responded to 3,964 serious crimes, such as rape, robbery, assault, burglary, larceny, auto theft, and arson; there were no homicides. The Santa Clara General Plan EIR concluded that although population growth allowed under the 2010-2035 General Plan would result in an increased demand for police services, which would require new police officers, the new officers could be housed in existing police facilities and no new construction would be required. On this basis, the EIR found that implementation of the 2010-2035 General Plan would have a less-than-significant impact on police protection services and facilities. The proposed project is consistent with the land use assumed for the site in the General Plan and would result in an on-site population well under that envisioned in the General Plan. Therefore, the project's potential impact on police protection services was already disclosed in the General Plan EIR, and no further analysis is necessary.

c) *Schools?*

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Explanation: Students living in the proposed townhomes would attend public schools in the Santa Clara Unified School District (SCUSD). SCUSD operates 16 elementary schools, three middle schools, two high schools, one K-8 school, two continuation schools, and one adult education school.⁵⁵ The closest SCUSD elementary school is Scott Lane Elementary School, which is located at 1925 Scott Boulevard (about 3,500 west of the project site), and the nearest middle school is Buchser Middle School, located at 1111 Bellomy Street, about 4,000 feet south of the project. Wilson High School, an alternative needs-based school, is the closest public high school, located at 1840 Benton Street, approximately 1 mile to the southwest. The nearest

⁵⁴ Santa Clara Police Department, <http://scpd.org/index.aspx?page=25>, accessed July 12, 2015.

⁵⁵ City of Santa Clara, *2010-2035 General Plan Integrated Final EIR*, Section 4.6.1.3, January 2011.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

comprehensive high school is Santa Clara High School, located about 2.1 miles southwest of the project site, at 3000 Benton Street.

In addition to these SCUSD schools are St. Clare School, a private Catholic elementary school located at 725 Washington Street, approximately 2,850 feet (0.54 mile) south of the project site, and Santa Clara University, a private non-profit Jesuit university located about 2,000 feet (0.4 mile) south-southeast of the site.

Although students in the City of Santa Clara are served by six different school districts in the region, the majority attend schools in the SCUSD. The Santa Clara General Plan EIR concluded that implementation of the 2010-2035 General Plan would add approximately 12,500 new households to the District's service area, resulting in an estimated 2,000 new students. The EIR noted that the District has four closed school sites that could be used to serve new development, and was anticipating construction of new school facilities in north San Jose that would accommodate growth in student population.

The General Plan EIR found the increased demand for schools that would result from population growth allowed under the 2010-2035 General Plan to be a less-than-significant impact. Since the proposed project is consistent with the land use and population growth assumed for the site in the General Plan, the project's potential impact on schools was already disclosed in the General Plan EIR, and no further analysis is necessary. Furthermore, pursuant to Senate Bill 50, which became effective in 1998, payment of the School Facilities Mitigation Fee has been deemed by the State legislature to be full and complete mitigation for the impacts of a development project on the provision of adequate school facilities. The proposed project would be required to pay the applicable School Facilities Mitigation Fee, which is based on the number of new housing units developed. With payment of these fees, the project would have a *less-than-significant impact* on schools.

d) Parks?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Explanation: The Santa Clara General Plan identifies five categories of parks and community open space in the City, based on typical size, programming, and intended use. The park categories are: mini-parks, neighborhood parks, community parks, open space, and recreation facilities. These categories are defined as follows:

- **Mini-Parks:** These parks have a small service area, are no larger than 1 acre in size, and are appropriate anywhere in the City. These parks typically have small service areas, dedicated to smaller-scale, more specific activities. The General Plan reports that the City has 1.6 acres of mini-parks.
- **Neighborhood Parks:** Neighborhood parks are generally between 1 and 15 acres in size, providing both amenities and open space, and are located in medium- and high-density residential areas. They provide facilities for various activities, including passive uses, children's playgrounds, and sports fields. The General Plan reports that the City has 134 acres of neighborhood parks, accounting for nearly 50 percent of the City's total parkland.
- **Community Parks:** Parks in this category are over 15 acres in size and draw visitors from a large radius, often the entire City. Like neighborhood parks, they should be

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

located in medium- and high-density residential areas. Santa Clara has a single 52-acre community park, Central Park, which provides open space, picnic areas, a playground, playing fields, tennis courts, lawn bowling, an exercise course, and a swim center.

- **Public Open Space:** This category primarily includes peaceful, passive open space, but these parklands can also provide an open, landscaped setting for the City's historic resources. This category comprises about 6 percent of the City's total parkland.
- **Recreation Facilities:** The City has an array of recreation facilities, including sports fields, a skate park, swimming pools/centers, a senior center, and a youth center. Many of these facilities are located within larger park sites, creating a variety of options at a single location. Recreational facilities account for almost a quarter of the City's total park acreage.

When the 2010-2035 General Plan was adopted in November 2010, the City had an inventory of 48 parks, including 1 community park (Central Park), 4 mini parks, 24 neighborhood parks, 3 public open spaces, and 16 recreation facilities. In total, the City had 497.6 acres of parkland, which corresponded to 2.4 acres of local-serving parkland per 1,000 residents. Pursuant to the Quimby Act, the City is currently requiring new development to provide an equivalent of 3 acres of local-serving parkland per 1,000 residents or pay a corresponding in-lieu fee.

The closest public park to the project site is Larry J. Marsalli Park, a 7-acre neighborhood park that includes a picnic/BBQ area, a softball field, and children's playground. It is located about 160 feet south of the project site, on the opposite side of El Camino Real. Also within walking distance of the project are the 1.7-acre Reed Street Dog Park, located less than 1,000 feet to the north; Fremont Park, a 4.6-acre neighborhood park located about 2,650 feet (0.5 mile) to the southwest; the Senior Center, located immediately to the east of Fremont Park; Rotary Park, a 0.2-acre mini-park located about 2,850 feet (0.54 mile) to the west; and Civic Center Park, a 3-acre open space that also includes a 0.1-acre mini-park, Sesquicentennial Park. Additional parks are located within 1 mile of the project.

Although the proposed project residents would incrementally increase the use of existing parks, with an estimated population of 111 people (see Section XIII, Population and Housing), the amount of additional use by new residents would not be expected to result in physical deterioration of the parks or to otherwise adversely affect park facilities.

Santa Clara City Code Chapter 17.35 requires new residential development to provide adequate park and recreational land and/or pay a fee in-lieu of parkland dedication pursuant to the Quimby Act and/or Mitigation Fee Act (MFA). Consistent with the Quimby Act, City Code Section 17.35.020 allows the City to require payment of a park in-lieu fee only for subdivisions of 50 or fewer parcels. The payment of Quimby fees is generally considered to mitigate the impact of new development on existing parks. Because the proposed project would be required to pay in-lieu fees for parkland as a condition of approval, in accordance with the Quimby Act and Santa Clara City Code Chapter 17.35, the project would have a *less-than-significant impact* on parks.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

e) *Other public facilities?*

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Explanation: The City of Santa Clara has three libraries within its boundaries, including the Central Park Library, at 2635 Homestead Road; the Northside Branch Library, at 695 Moreland Way; and the Mission Library and Family Reading Center, at 1098 Lexington Street. The majority of the Library's collection is housed in the Central Park Library, an 84,000-square-foot facility that serves over 1.4 million visitors per year.

The City also has various public arts and cultural facilities, including the Triton Museum of Art, Mission City Center for Performing Arts, de Saisset museum, Santa Clara Convention Center, Headen-Inman House, Edward Peterman Museum of Railroad History, and other facilities.

The Santa Clara General Plan EIR evaluated the potential impact of future development allowed under the 2010-2035 General Plan on library and other community facilities. With respect to library facilities, the EIR concluded that new development along El Camino Real could be served by the large Central Park Library. Regarding other community facilities, the EIR concluded that the increased demand for arts, cultural, and community facilities generated by new growth allowed under the 2010-2035 General Plan would not exceed the existing capacity of such facilities or require construction of new facilities. Implementation of the 2010-2035 General Plan was therefore found to have a less-than-significant impact on libraries and other community facilities.

The proposed project is consistent with the land use assumed for the site in the General Plan and would result in an on-site population well under that envisioned in the General Plan. Therefore, the project's potential impact on libraries and other public facilities was already disclosed in the General Plan EIR, and no further analysis is necessary.

XV. RECREATION —

a) *Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?*

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Explanation: The park facilities discussed in Section XIV(d) provide various recreation facilities, including softball fields, tennis courts, basketball courts, soccer and other athletic fields, swimming pools, picnic/BBQ areas, and playgrounds. The potential impact from a project-generated increase in parks and associated recreation facilities was addressed previously in Section XIII(d).

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

☐ ☐ ☐ ☒

Explanation: The proposed project does not include construction of any recreational facilities.

XVI. TRANSPORTATION/TRAFFIC — Would the project:

- a) Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation, including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

☐ ☐ ☒ ☐

Explanation: Hexagon Transportation Consultants, Inc. conducted a traffic trip generation and operations analysis for the proposed project that included an analysis of existing and projected operating conditions at intersections in the immediate vicinity of the project site, and an evaluation of and existing pedestrian, bicycle, and transit facilities to accommodate the increase demand from the project.⁵⁶

Traffic Scenarios

The intersection analysis was performed for the following scenarios:

Existing Conditions. Existing conditions are represented by existing peak-hour traffic volumes at the study intersections, obtained from the Santa Clara County Congestion Management Program (CMP), supplemented by new peak-hour traffic counts conducted in June 2015.

Existing Plus Project Conditions. Existing Plus Project conditions were estimated by adding to existing traffic volumes the additional traffic generated by the project. Existing Plus Project conditions were evaluated relative to existing conditions in order to determine potential project impacts.

Study Intersections

The Hexagon traffic study evaluated the project at three intersections during the AM and PM peak hours, using the 2000 *Highway Capacity Manual* and TRAFFIX software. Within the City of

⁵⁶ Hexagon Transportation Consultants, Inc., *Santa Clara 1 Townhome Development Trip Generation and Operations Analysis*, July 8, 2015.



Figure T-1
Project Trip Distribution and Peak-Hour
Volumes at Traffic Study Intersections

Source: Hexagon Transportation Consultants, Inc.

Santa Clara, these peak hours (commonly referred to as the commute hours), occur between 7:00 AM and 9:00 AM and between 4:00 PM and 6:00 PM. These periods represent the most congested traffic conditions of an average weekday. A study of freeway segments was not required of the development because a Santa Clara County Congestion Management Program (CMP) analysis was not required. Operating conditions at the following signalized intersections, shown on Figure T-1, were evaluated:

- El Camino Real and Lafayette Street (Signalized)
- El Camino Real and Alviso Street (One-Way Stop)
- Lafayette Street and Civic Center Street (Two-Way Stop)

Level-of-Service Criteria

The Level of Service (LOS) criteria from the 2000 *Highway Capacity Manual* were utilized for local roadway analysis. LOS primarily describes traffic flow conditions. LOS varies from LOS A to LOS F, and ranges from LOS A (indicating free-flow traffic conditions with little or no delay at intersections) to LOS F (representing over-saturated conditions where traffic flows exceed design capacity, resulting in long queues and delays). The different levels of service are defined by the amount of delay experienced by vehicles at a study intersection, as shown in Table T-1 for both signalized and unsignalized intersections. The minimum acceptable level of service in the City of Santa Clara for signalized intersections is LOS D, associated with delays of 35.1 to 55 seconds; the City doesn't have an adopted standard for unsignalized intersections.

Table T-1
Traffic Level Of Service Criteria

Signalized Intersections	
LOS	Average Control Delay per Vehicle, in Seconds
A	0.0–10.0
B	10.1–20.0
C	20.1–35.0
D	35.1–55.0
E	55.1 –80.0
F	> 80.0
Non-signalized Intersections	
LOS	Average Stopped Delay per Vehicle, in Seconds
A	0.0–10.0
B	10.1–15.0
C	15.1–25.0
D	25.1–35.0
E	35.1–50.0
F	>50.0

Source: Transportation Research Board, *Highway Capacity Manual 2000*.

The intersection of Lafayette Street and El Camino Real is also a Santa Clara County CMP-designated intersection. The CMP level of service standard for signalized intersections is LOS E or better.

Trip Generation Estimates

Through empirical research, data have been collected that quantify the amount of traffic produced by common types of land uses. For residential uses, there are standard trip generation rates that can be applied to help predict the future traffic increases that would result from a new development. The magnitude of traffic added to the roadway system by a particular development is estimated by multiplying the applicable trip generation rates to the size of the development. The standard trip generation rates are published in the Institute of Transportation Engineers (ITE) manual entitled *Trip Generation*, 9th Edition. Based on ITE's trip generation rates for Condominium/Townhome uses, the 40-unit townhome project is expected to generate 232 daily vehicle trips, with 18 trips occurring during the AM peak hour and 21 trips occurring during the PM peak hour. The breakdown of these trips is shown in Table T-2. The distribution of the trips on the local road network is shown on Figure T-1.

Hexagon observed weekday peak-hour vehicle activity associated with the existing uses on the project site, which are currently limited to outdoor vehicle storage and warehousing. The observations indicated that the site currently generates a minimal amount of trips during the peak hours, if any at all. Therefore, Hexagon did not apply a credit for existing trips in the traffic analysis of the proposed project.

Road Network

Regional access to the project site is provided by U.S. 101, located about 1.4 miles north of the site; Interstate 880 located about 1.4 miles southeast of the site; the Guadalupe Parkway (State Highway 87), located about 1.7 miles to the east; and I-280, located about 2.7 miles south of the site. El Camino Real (State Highway 82) runs adjacent to the southern boundary of the project site. Local access to the project site is provided by Alviso Street, which connects to El Camino Real, and Civic Center Drive via Lafayette Street. The local roadways that would serve the project are described below:

El Camino Real (SR 82) is a six-lane, east/west divided roadway in the vicinity of the site that services the surrounding residential and commercial uses. Just east of the project site, El Camino Real heads in a more southerly direction. It is designated an Arterial in the Santa Clara General Plan.

Lafayette Street is a three- to four-lane, north/south roadway that provides access to I-880 on the south and U.S. 101 to the north. Lafayette Street is also designated an Arterial in the Santa Clara General Plan.

Civic Center Drive is a two-lane east/west local street with parking lanes on both sides.

Alviso Street is a short two-lane street segment that forms the frontage to the project site. It connects Civic Center Drive to El Camino Real.

Land Use Designation	ITE Land Use	Size	Daily Trip Rate /a/	Daily Trips	AM Peak Hour						PM Peak Hour					
					Pk-Hr Rate /a/	Splits		Trips			Pk-Hr Rate /a/	Splits		Trips		
						In	Out	In	Out	Total		In	Out	In	Out	Total
Proposed Land Use																
40 units Town Homes	230 - Condominium/Townhouse	40 units	5.81	232	0.44	17%	83%	<u>3</u>	<u>15</u>	<u>18</u>	0.52	67%	33%	<u>14</u>	<u>7</u>	<u>21</u>
Source: ITE Trip Generation, 9th Edition, 2012. /a/ The average trip generation rate from the ITE Trip Generation Manual was used.																

Table T-2

Trip Generation Estimates

Source: Hexagon Transportation Consultants, Inc.

Study Number	Intersection	Existing Intersection Control	Peak Hour	Signal Warrant Met?	Count Date	Existing			Existing Plus Project		
						Avg. Delay ¹	Worst Delay ²	LOS	Avg. Delay ¹	Worst Delay ¹	LOS
1	El Camino Real and Lafayette Street *	Signal	AM	n/a	06/09/15	39.2	–	D	39.3	–	D
			PM	n/a	09/17/14	41.3	–	D	41.4	–	D
2	El Camino Real and Alviso Street	One-Way Stop	AM	No	06/09/15	0.1	29.3	A	0.2	29.9	A
			PM	No	06/09/15	0.0	15.2	A	0.0	15.3	A
3	Lafayette Street and Civic Center Drive	Two-Way Stop	AM	No	06/09/15	0.6	30.7	A	1.1	53.1	A
			PM	No	06/09/15	0.4	32.3	A	0.5	32.7	A

¹The reported delay and corresponding level of service represents the average delay for all approaches at the intersection.

²The worst case delay is normally the time it would take a vehicle on the minor street of an unsignalized intersection to make a left-turn onto the major street, expressed in seconds per vehicle.

* Denotes CMP Intersections

Table T-3

Existing Plus Project Peak-Hour Levels of Service

Source: Hexagon Transportation Consultants, Inc.

Intersection Operations Analysis

Level of Service Analysis

Using the existing peak-hour traffic volumes provided by the Santa Clara County CMP and the June 2015 peak-hour traffic counts collected by Hexagon, operations at the project study intersections were evaluated both without (Existing) and with (Plus Project) the addition of project-generated traffic. The results are shown in Table T-3. As shown in the table, all three study intersections are currently operating at acceptable levels of service of LOS D or better, and the addition of project traffic would not result in a deterioration in LOS or increase average delay by more than 1 second. Therefore, the project would have a *less-than-significant impact* on intersection levels of service.

Traffic Signal Warrants

Because the project would add traffic to two unsignalized intersections, Hexagon's analysis included an evaluation of whether implementation of the project would result in a need for signalization. The assessment was made on the basis of the Peak-Hour Volume Signal Warrant, Warrant #3 described in the *California Manual on Uniform Traffic Control Devices* (2012). Irrespective of intersection level of service, Warrant #3 is based on whether peak-hour traffic volumes are sufficient to justify installation of a traffic signal, or would be after the addition of project-generated traffic. Hexagon's signal warrant analysis determined that the peak-hour volume warrant would not be satisfied at either of the unsignalized study intersections under Existing or Existing Plus Project conditions.

Vehicle Queuing Analysis

Hexagon estimated vehicle queues were using TRAFFIX software, which is based on the HCM 2000 methodology. The traffic consultant compared the maximum queue length estimated by TRAFFIX to the existing or planned available storage capacity for each critical turning movement in order to evaluate the adequacy of the lane storage at the study intersections. The results of the queue analysis are summarized in Table T-4.

As shown in the table, the queuing analysis indicates that the southbound and eastbound left-turn movements at the Lafayette Street and El Camino Real intersection currently do not have adequate queue storage capacity to serve the existing queue lengths during the peak hours. While the proposed project would add trips to this and the other intersections studied, project traffic would increase the projected maximum queue lengths at each of the movements by at most one vehicle. Hexagon concluded that this minor increase in queuing would not cause a significant impact to the roadway system.

Scenario	Peak Hour	Projected Queue Length (Vehicles)			
		Lafayette St/El Camino Real		Lafayette St/Civic Center Dr	
		SBL	EBL	SBL	WB
Existing	AM	9	20	0	0
	PM	17	19	0	0
ExistingProject Plus Project	AM	10	20	0	1
	PM	17	19	0	0
Available Storage					
Existing & Background Storage (feet)		125	400	325	175
Existing & Background Storage (Vehicle) ¹		5	16	13	7
¹ Assumed 25 feet per vehicle. Red numbers indicate movements for which projected queue lengths exceed available storage capacity.					

Table T-4

Existing Plus Project Projected Peak-Hour
Intersection Queue Lengths

Source: Hexagon Transportation Consultants, Inc.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- b) *Conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?*

☐ ☐ ☐ ☒

Explanation: A study of freeway segments was not required of the development because a Santa Clara County CMP analysis was not required. The threshold for CMP analysis is 100 peak-hour trips. As discussed in more detail in Section XVI(a), above, although the project would add traffic to a CMP-designated intersection (El Camino Real at Lafayette Street), it would not adversely affect level of service at the intersection. The project would not conflict with the Santa Clara County CMP.

- c) *Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?*

☐ ☐ ☐ ☒

Explanation: The proposed project would have no effect on air traffic patterns.

- d) *Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?*

☐ ☐ ☐ ☒

Explanation: The project would not create new offsite roads or intersections or alter existing offsite roadways. It would create a new internal street network to provide vehicle access to the proposed townhomes, as shown on Figure 3. The primary road, 26 feet wide, would extend through the site, terminating at a parking area for eight cars located in the southeast corner of the site. Two short street segments, functioning as rear alleys, would branch to the south from the main street, providing access to the rear- and side-loaded garages of the Type A and Type B floor plans, respectively.

Hexagon reviewed the project site plan in accordance with generally accepted traffic engineering standards to determine if adequate site access and on-site circulation are provided and to identify any access or circulation issues that should be improved. This review was based on the site plan prepared by Hunt Hale Jones, dated July 20, 2015, presented on Figure 3. Hexagon concluded that the plan exhibits adequate site access and on-site circulation for motor vehicles. The site plan also conforms with City of Santa Clara driveway standards, which state that standard driveways with two-way traffic that provide access to more than 25 parking spaces should be at least 24 feet wide for residential developments. Based on the above considerations, the project would not create or increase traffic hazards.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

e) *Result in inadequate emergency access?*

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Explanation: As discussed in Section XVI(d), above, Hexagon concluded that the plan exhibits adequate site access and on-site circulation for motor vehicles, including fire trucks and other emergency vehicles, and would not alter offsite access routes. Furthermore, prior to project approval, the Santa Clare Fire Department will be required to sign off on the adequacy of the project plans as they pertain to site access and fire safety issues.

f) *Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety to such facilities?*

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Explanation: There are no existing designated bicycle facilities in the immediate vicinity of the project site. However, the Santa Clara General Plan designates El Camino Real and Lafayette Street as potential bicycle corridors for future study. The City's Transit Network map also designates El Camino Real as a potential bus rapid transit (BRT) or similar service route and Lafayette Street as a corridor for future transit opportunities.

All of the City's Mobility and Transportation goals and policies were reviewed to identify any potential conflicts. The proposed project appears to be consistent with all of the policies, which will be subject to confirmation by City decision makers. In particular, the project would conform to the following policies:

General Mobility and Transportation Policies

- 5.8.2-P3** Encourage undergrounding of utilities and utility equipment within the public right-of-way and site these facilities to provide opportunities for street trees and adequate sidewalks.
- 5.8.2-P9** Require all new development to provide streets and sidewalks that meet City goals and standards, including new development in employment areas.
- 5.8.3-P9** Require new development to incorporate reduced onsite parking and provide enhanced amenities, such as pedestrian links, benches and lighting, in order to encourage transit use and increase access to transit services.
- 5.8.4-P6** Require new development to connect individual sites with existing and planned bicycle and pedestrian facilities, as well as with on-site and neighborhood amenities/services, to promote alternate modes of transportation.
- 5.8.4-P7** Require new development to provide sidewalks, street trees and lighting on both sides of all streets in accordance with City standards, including new developments in employment areas.
- 5.8.4-P8** Require new development and public facilities to provide improvements, such as sidewalks, landscaping and bicycling facilities, to promote pedestrian and bicycle use.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The streets and sidewalks for the proposed project appear to conform to City standards, subject to City confirmation prior to project approval. The project would provide quick pedestrian access to existing bus transit stops on El Camino Real. The project would provide street trees, lighting, and landscaped sidewalks throughout the site to promote pedestrian use. The project is consistent with the City's General Mobility and Transportation policies.

The City's Transportation and Demand Management (TDM) goals and policies are intended to complement land use, transit network, and bicycle and pedestrian network goals and policies by expanding opportunities for alternative modes of transit, particularly for employment uses in the City. As such, they function as policies pertaining to public transit, bicycle, or pedestrian facilities, and were also reviewed for project consistency. The following TDM policies especially pertain to the project:

Transportation Demand Management Policies

- 5.8.5-P1** Require new development and City employees to implement transportation demand management programs that can include site-design measures, including preferred carpool and vanpool parking, enhanced pedestrian access, bicycle storage and recreational facilities.
- 5.8.5-P2** Require development to offer on-site services, such as ATMs, dry cleaning, exercise rooms, cafeterias and concierge services, to reduce daytime trips.
- 5.8.5-P3** Encourage all new development to provide on-site bicycle facilities and pedestrian circulation.

The proposed project includes a variety of improvements to enhance pedestrian access to and from the site and to and from off-site amenities and services. The existing damaged sidewalk, curb, and gutter along the site's frontage would be repaired and enhanced, and existing curb ramps at the El Camino Real/Alviso Street intersection and at the crosswalk at the De La Cruz Boulevard off-ramp at El Camino Real would be replaced with new facilities complying with Americans with Disabilities Act (ADA) requirements. ADA-compliant walkways would be provided from each townhome to the public sidewalk. The existing triangular median island at the El Camino Real/Alviso Street intersection would be replaced with an ADA-compliant median. The project would also provide four Class II bicycle parking spaces at the main entrance to the site and/or in high-visibility areas. These features enhancing bicycle and pedestrian use would help to reduce vehicle usage. In addition, the amount of street parking provided by the project would be limited to eight visitor spaces consolidated in a small parking area at the southeast corner of the site. This limited street parking supply would further discourage auto use and support alternative transportation modes. Based on the above considerations, no conflicts with the City's adopted TDM policies were identified.

XVII. UTILITIES AND SERVICE SYSTEMS — *Would the project:*

- a) *Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?* ☐ ☐ ☐ ☒

Explanation: Wastewater from the project would be treated at the San Jose-Santa Clara Water Regional Wastewater Facility (the Facility), operated by the San Jose Department of

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Environmental Services. The Facility is located in San Jose at 700 Los Esteros Road, near San Francisco Bay, about 5 miles north of the project site. The Facility is permitted by the Regional Water Quality Control Board (RWQCB) and effluent from the plant is regularly monitored to ensure that water quality standards are not violated.

Based on a search of violation reports over the past five years, the San Francisco Bay Regional Water Quality Control Board (RWQCB) shows one National Pollutant Discharge Elimination System (NPDES) violation for the Facility in the past five years.⁵⁷ In December 2011 a high residual chlorine concentration was measured downstream of the plant. Investigation revealed that the plant's dechlorinating agent had been diluted by pump flushing water. An alternate sulfur dioxide (SO₂) gas system was put into operation and subsequent monitoring determined that chlorine residual was no longer present. No other violations were reported over the past five years.

The plant operator is responsible for complying with the applicable wastewater treatment requirements. As indicated by the search results, the Facility is generally in compliance with these requirements, as confirmed by the San Francisco Bay RWQCB. Wastewater generated by the proposed project would be typical of wastewater generated throughout the Facility service area. There is no potential for the project to cause the Facility to exceed wastewater treatment requirements.

- b) *Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?*

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Explanation:

Water Facilities

The Santa Clara Valley Water District (SCVWD) provides potable water to 13 water retailers in Santa Clara County, including the City of Santa Clara. The SCVWD's water system infrastructure includes 142 miles of pipelines and ten local reservoirs with a total storage capacity of approximately 170,000 acre-feet.⁵⁸ The District operates three water treatment facilities that have a combined daily treatment capacity of 220 million gallons per day (mgd).

The Public Policy Institute of California reports that per capita water consumption in coastal areas of California averages 145 gallons per day (gpd).⁵⁹ At this consumption rate and an estimated population of 111 residents, the proposed project would generate demand for about 16,095 gpd of domestic water. With a total District-wide consumption of 332,900 acre-feet in

⁵⁷ California Environmental Protection Agency, State Water Resources Control Board, California Integrated Water Quality System Project (CIWQS), Violation Reports, accessed July 22, 2015 at: <https://ciwqs.waterboards.ca.gov/ciwqs/readOnly/CiwqsReportServlet?vioReportType=Violation&reportID=6072939&inCommand=drilldown&reportName=PublicVioFacilityReport&group=Santa%20Clara>.

⁵⁸ An acre-foot is the amount of water necessary to cover 1 acre of land to a depth of 1 foot, and is equivalent to 325,851.43 gallons, or 43,560 cubic feet.

⁵⁹ Public Policy Institute of California, Just the Facts: Water Use in California, accessed July 22, 2015 at: http://www.ppic.org/main/publication_show.asp?i=1108.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2010, equivalent to about 297,198,919 gpd, the project's incremental water demand would represent about 0.0054 percent of daily demand in the District. This incremental increase can be presumed to have been planned for in SCVWD projections of future growth in demand, which were based on demand projections provided by the City of Santa Clara and the other water retailers in the District.⁶⁰ Future projected demand was also based on the most current demographic projections provided by the Association of Bay Area Governments (ABAG), which in turn are based on adopted general plans of local agencies.

The latest Urban Water Management Plan (UWMP) prepared by the SCVWD in 2010 concluded that the District would be unable to meet projected water demand after 2025 without securing additional supplies and constructing additional infrastructure.⁶¹ To address this need, the District adopted a Water Supply and Infrastructure Master Plan in 2012 that identifies a variety of strategies for meeting future demand, which include developing new groundwater recharge ponds along Saratoga Creek near Highway 85, constructing a supply pipeline between Lexington Reservoir and the raw water system, and expanding the capacity of the Rinconada Water Treatment Plant to 100 mgd, among other coordinated strategies.⁶² In combination with increasing conservation and recycling and expanding supplies, the Master Plan concluded that the District would have sufficient supplies to meet 100 percent of projected Year 2035 demand during the first five years of an extended drought, and more than 90 percent of demand during the sixth year of an extended drought, which is consistent with the supply reliability level of service goal adopted by the SCVWD. Therefore, the water supply planning of the SCVWD already anticipated construction of additional water supply infrastructure. The minute incremental demand that would be generated by the project was included in future water demand projections. The project would not result in the need for new water supplies or infrastructure that was not already planned. Therefore, the project's impact on water supply and water treatment and distribution facilities would be *less than significant*.

Wastewater Facilities

As noted in Section XVII(a), above, wastewater from the project would be treated at the San Jose/Santa Clara WPCP. The wastewater treatment plant provides primary, secondary, and tertiary treatment of wastewater for four sanitation districts and eight cities in the region, including the City of Santa Clara). The current treatment capacity of the plant is 167 mgd and average daily flows are 110 mgd.⁶³ According to the Santa Clara General Plan EIR, the City of Santa Clara has a treatment capacity allocation of 22.585 mgd, while its average dry weather flow (ADWF) in 2009 was 13.3 mgd. With buildout of Phase 3 of the General Plan, the ADWF was projected to be 20.1 mgd, leaving 2.485 mgd of remaining capacity. The EIR concluded that implementation of the 2010-2035 General Plan would therefore have a less-than-significant impact on wastewater treatment capacity. Since the proposed project is consistent with the land use and population assumed for the project site in the General Plan EIR, the proposed project would also have a *less-than-significant impact* on wastewater treatment capacity.

⁶⁰ Santa Clara Valley Water District, *Urban Water Management Plan 2010*, Section 4.3, Demand Projections, [undated].

⁶¹ *Ibid.*

⁶² Santa Clara Valley Water District, *2012 Water Supply and Infrastructure Master Plan*, Chapter 3: The Water Supply Strategy Ensures Sustainability, October 2012.

⁶³ City of Santa Clara, San Jose-Santa Clara Regional Wastewater Facility, accessed July 22, 2015 at: <https://www.sanjoseca.gov/Index.aspx?NID=1663>.

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- c) *Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?*

☐ ☒ ☐ ☐

Explanation: The project may entail replacement of the existing 12-inch storm drain under Civic Center Drive between Alviso Street and Lafayette Street with a 15-inch pipe because the existing pipe currently has insufficient capacity to accommodate the stormwater flow from the area during the 10-year storm event. Alternatively, detention facilities may be constructed on the project site to sufficiently reduce the storm flow from the site, in comparison with existing conditions, to accommodate the 10-year storm flow in the Civic Center storm drain. The potential environmental effects from this construction work (either option) would be addressed by the construction-related mitigation measures identified in Sections III (Air Quality), IX (Hydrology and Water Quality), and XII (Noise). Also see Section XVII(b), above.

- d) *Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?*

☐ ☐ ☒ ☐

Explanation: Water supplies are addressed in the discussion presented in Section XVII(b), above.

- e) *Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?*

☐ ☐ ☒ ☐

Explanation: See Section XVII(b), above.

- f) *Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?*

☐ ☐ ☒ ☐

Explanation: Solid waste collection service would be provided to the project by Mission Trail Waste System. Collected non-recyclable waste would be disposed of at the Newby Island Landfill, located in San Jose. The General Plan EIR evaluated potential impacts on waste disposal capacity that would result from implementation of the 2010-2035 General Plan. Although the City has a waste disposal contract to dispose of the City's waste at Newby Island Landfill through 2024, and the landfill has sufficient available capacity to operate through 2024, it is currently unknown whether the City will extend the contract with Newby Island Landfill (if additional capacity remains) or contract with the operator of another landfill. Given the

Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
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uncertainty of the future availability of solid waste disposal capacity through the entire planning horizon of the General Plan (i.e., through 2035), the EIR concluded that implementation of the 2010-2035 General Plan would have a significant and unavoidable impact on solid waste disposal capacity. Because this impact was previously disclosed, and the proposed project is consistent with the land use type and density evaluated in the General Plan EIR, no further analysis of this impact is required.

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE —

- a) *Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?*

☐ ☒ ☐ ☐

Explanation: The project site is an industrial site that contains no valuable or sensitive habitats, and there is no potential for impacts to biological resources. There is a possibility for encountering buried historic/prehistoric cultural resources on the site, but mitigation measures have been identified to minimize potential impacts in the event such resources are encountered during project construction.

- b) *Does the project have impacts that are individually limited but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)*

☐ ☐ ☒ ☐

Explanation: No significant cumulative impacts were identified for the proposed project. The less-than-significant cumulative impacts are discussed individually in the dedicated resource sections, including air quality, greenhouse gases, traffic, and others.

- c) *Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?*

☐ ☒ ☐ ☐

Explanation: The proposed project, consisting entirely of residential construction, would not introduce any significant hazards to the project area. Measures have been identified to address potentially significant impacts associated with strong seismic shaking and other

seismic/geotechnical hazards. Mitigation measures have also been identified to address potentially significant impacts on water quality, which could result in indirect health effects in swimmers in the San Francisco Bay (waterborne diseases) and to those consuming fish or shellfish. There is some potential to expose workers and future residents to hazardous materials, such as lead-contaminated soil and paint and asbestos-containing building materials. There is also potential for temporary air pollutant emissions from construction activities, including wind-blown dust, to adversely affect nearby persons with sensitive respiratory systems. Nearby residents could also be disturbed by temporary construction noise, and future project residents could be exposed to excessive noise levels from rail and vehicle traffic. Mitigation measures have been identified to reduce these potential impacts to less-than-significant levels. With implementation of all mitigation measures identified in this Initial Study, the project would not have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly.

REPORT PREPARATION

This Initial Study/Mitigated Negative Declaration was prepared under the direction of Douglas Herring & Associates. In addition, the technical consultants listed below contributed to preparation of the Initial Study or produced separate technical reports.

Project Manager:	Douglas Herring & Associates 1331 Linda Vista Drive El Cerrito, CA 94530 Doug Herring, AICP, Principal
City of Santa Clara:	Jeff Schwilk, Associate Planner
Air Quality & Greenhouse Gases:	The RCH Group, Inc. 11060 White Rock Road, #150-A Rancho Cordova, CA 95670 Mike Ratte, Senior Air Quality Scientist

MITIGATION MEASURES

Air Quality

Mitigation Measure AQ-1: BAAQMD Required Dust Control Measures: The contractor shall reduce construction-related air pollutant emissions by implementing BAAQMD's basic fugitive dust control measures, including:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered at least two times per day.
- All haul trucks transporting soil, sand, or other loose material off site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 miles per hour.
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- The project sponsor shall retain the services of an independent dust, noise, and general complaint company to receive citizen complaints during project construction and track their resolution. A publicly visible sign shall be posted at the project site perimeter with the telephone number of the complaint company. The Air District's phone number shall also be visible on this notice to ensure compliance with applicable regulations. The project sponsor or construction contractor shall respond to any complaints received during construction and take appropriate corrective action within 48 hours of receiving the complaint.

Mitigation Measure AQ-2: BAAQMD Required Basic Exhaust Emissions Reduction Measures: The contractor shall implement the following measures during excavation to reduce construction-related exhaust emissions:

- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure, Title 13, Section 2485 of California Code of Regulations). Clear signage shall be provided for workers at all access points.

- All off-road equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.

Mitigation Measure AQ-3: BAAQMD Regulation 8, Rule 3 for Architectural Coatings: Emissions of volatile organic compounds (VOCs) due to the use of architectural coatings are regulated by the limits contained in Regulation 8: Organic Compounds, Rule 3: Architectural Coatings (Rule 8-3). Rule 8-3 was revised on January 1, 2011 to include more stringent VOC limit requirements. The revised VOC architectural coating limits specify that the use paints and solvents with a VOC content of 100 grams per liter or less for interior and 150 grams per liter or less for exterior surfaces shall be required.

Mitigation Measure AQ-4: Implement Enhanced Exhaust Emissions Reduction Measures: The construction contractor shall implement the following measures during construction to further reduce construction-related exhaust emissions:

All off-road equipment greater than 25 horsepower (hp) and operating for more than 20 total hours over the entire duration of construction activities shall meet the following requirements:

- Where access to alternative sources of power are available, portable diesel engines shall be prohibited; and
- All off-road equipment shall have:
 - a) Engines that meet or exceed either USEPA or CARB Tier 2 off-road emission standards, and
 - b) Engines that are retrofitted with a CARB Level 3 Verified Diesel Emissions Control Strategy (VDECS). Acceptable options for reducing emissions include the use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, add-on devices such as particulate filters, and/or other options as such are available.

Biological Resources

Mitigation Measure BR-1: Tree removal and construction activity shall be scheduled to avoid the nesting season to the extent feasible. The nesting season for most birds, including most raptors, in the San Francisco Bay Area extends from February through August. If it is not possible to schedule demolition and construction activity between September and January, then preconstruction surveys for nesting birds shall be completed by a qualified ornithologist to ensure that no nests will be disturbed during project implementation. The survey shall be conducted no more than 14 days prior to the initiation of construction activities during the later part of the breeding season (May through August). During this survey, the

ornithologist shall inspect all trees and other possible nesting habitats immediately adjacent to the construction area for nests. If an active nest is found sufficiently close to work areas to be disturbed by construction, the ornithologist, in consultation with the California Department of Fish and Wildlife (CGFW), shall determine the extent of a construction-free buffer zone to be established around the nest, typically 250 feet, to ensure that raptor or migratory birds will not be disturbed during project construction. The fenced buffer shall be maintained around the nest tree and the site shall be protected until September 1st or until the young have fledged. A biological monitor shall be present during earth-moving activity near the buffer zone to make sure that grading does not enter the buffer area.

Mitigation Measure BR-2: Prior to the initiation of construction activity, the project sponsor shall retain the services of a certified arborist to establish appropriate protection zones around all adjacent trees that could be adversely affected by the project. Recommended and minimum tree protection zones (TPZs) are identified for each tree in Appendix B2 of the arborist report prepared for the project by Monarch Consulting Arborists (May 2015). TPZ fencing, 6 feet in height, shall be established around each adjacent tree and shall be maintained throughout project construction. At a minimum, the critical root zone (CRZ) identified in Appendix B2 of the arborist report shall comprise the TPZ. The TPZ fencing shall conform to the specifications stipulated in Appendix D of the Monarch arborist report.

Prior to the initiation of construction activity, all project construction contractors shall attend a pre-construction meeting with the project arborist to review the tree protection guidelines, which should identify access routes, storage areas, and work procedures.

No activity shall encroach upon the TPZs and no materials, debris, or excess soil shall be placed within the TPZs. The TPZ fencing shall be periodically inspected and repaired as needed. A certified arborist shall conduct a final inspection of the TPZs prior to their removal at the end of construction. Any warranted remedial work on the trees identified by the arborist shall be performed prior to issuance of occupancy permits for the project.

Cultural Resources

Mitigation Measure CR-1: In the event that prehistoric or historic resources are encountered during excavation and/or grading of the site, all activity within a 50-foot radius of the find shall be stopped, the Director of Planning and Inspection shall be notified, and a qualified archeologist or paleontologist shall examine the find and make appropriate recommendations. Recommendations could include collection, recordation, and analysis of any significant cultural materials. A report of findings documenting any data recovery during monitoring shall be submitted to the Director of Planning and Inspection.

Mitigation Measure CR-2: In the event that human remains are discovered during excavation and/or grading of the site, all activity within a 50-foot radius of the find shall be stopped. The Santa Clara County Coroner shall be notified and shall make a determination as to whether the remains are Native American origin or whether an investigation into the cause of death is required. If the remains are determined to be Native American, the Coroner will notify the Native American Heritage Commission (NAHC) immediately. Once the NAHC identifies the most likely descendants, the descendants will make recommendations regarding the proper burial which shall be implemented in accordance with Section 15064.5(e) of the *CEQA Guidelines*.

Geology and Soils

Mitigation Measure GS-1: Prior to issuance of a grading permit, the project sponsor shall retain the services of a qualified geotechnical engineer or engineering geologist to prepare a design-level geotechnical investigation for purposes of identifying project-specific foundation and structural design features needed for the project to withstand the seismic shaking intensity expected at the site in the event of a large earthquake. The report shall confirm or clarify the site preparation recommendations related to liquefaction and settlement potential presented in the April 2015 Preliminary Geotechnical Findings report prepared by T. Makdissy Consulting, Inc. The recommendations in the preliminary geotechnical investigation report shall be updated or modified as appropriate to reflect the design-level geotechnical investigation.

Mitigation Measure GS-2: The proposed project design and construction shall incorporate all of the site preparation, foundation design, structural design, drainage, ground improvement performance testing, pavement design, and other recommendations presented in the design-level geotechnical investigation required by Mitigation Measures GS-1, unless modified during construction, based on field conditions, by a qualified registered geotechnical or civil engineer. In addition, the final grading plans shall be reviewed by a qualified registered geotechnical or civil engineer, and any resulting additional recommendations shall be incorporated into the project. All site preparation work shall be performed under the observation of the Geotechnical Engineering firm of record. All design and construction shall conform to the requirements of the latest Uniform Building Code. All structural design and construction shall be subject to final approval by the City of Santa Clara Building Inspection Division.

Hazards and Hazardous Materials

Mitigation Measure HM-1: Prior to issuance of a demolition permit for the existing buildings on the site, a comprehensive survey for asbestos-containing building materials (ACBM) shall be conducted by a qualified asbestos abatement contractor. Sampling for ACBM shall be

performed in accordance with the sampling protocol of the Asbestos Hazard Emergency Response Act (AHERA). If ACBM is identified, all friable asbestos shall be removed prior to building demolition by a State-certified Asbestos Abatement Contractor, in accordance with all applicable State and local regulations. The Bay Area Air Quality Management District (BAAQMD) shall be notified ten days in advance of any required abatement work. To document compliance with the applicable regulations, the project sponsor shall provide the City of Santa Clara Building Inspection Division with a copy of the notice required by BAAQMD for asbestos abatement work, prior to and as a condition of issuance of the demolition permit.

Mitigation Measure HM-2: Prior to issuance of a demolition permit for the existing buildings on the site, a survey for lead-based paint (LBP) shall be conducted by a qualified lead assessor. If LBP is identified, lead abatement shall be performed in compliance with all federal, State, and local regulations applicable to work with LBP and disposal of lead-containing waste. A State-certified Lead-Related Construction Inspector/Assessor shall provide a lead clearance report after the lead abatement work in the buildings is completed. The project sponsor shall provide a copy of the lead clearance report to the City of Santa Clara Building Inspection Division prior to issuance of a demolition permit.

Mitigation Measure HM-3: Areas of contaminated soil identified in the hatched areas on Figure HM-1 shall be excavated to a depth of 1.5 feet below the ground surface and properly disposed of prior to issuance of a grading permit for the project. The contaminated soils shall be excavated and removed by a qualified Removal Contractor and disposed of at a regulated Class I hazardous waste landfill in accordance with U.S. Environmental Protection Agency regulations and/or applicable State regulations. Employees of the Removal Contractor assigned to the project shall have completed a safety training program that complies with federal Occupational Safety and Health Administration (OSHA) requirements set forth in Title 29, Section 1910.120 of the Code of Federal Regulation (CFR) and with California Occupational Safety and Health Administration (CAL-OSHA) requirements set forth in Title 8, Section 5192 of the California Code of Regulations (CCR). If temporary stockpiling of contaminated soil is necessary, it shall be covered with plastic sheeting or tarps and a berm shall be constructed around the stockpile to prevent stormwater runoff from leaving the area. Confirmation sampling shall be performed on soils surrounding the excavations to verify that all contaminated soil above regulatory thresholds has been removed.

The Removal Contractor shall obtain, complete, and sign hazardous waste manifests to accompany the soils to the disposal site. If applicable, other non-hazardous excavated soils shall be disposed of in an appropriate landfill, as governed by applicable laws and regulations.

Following completion of the removal of impacted soil, Stantec or another qualified Registered Environmental Assessor shall prepare a closure report to be reviewed and approved by the Santa Clara County Department of Environmental Health (CSCDEH). The project applicant shall provide a copy of the “No Further Action” letter (i.e., regulatory case closure) from CSCDEH to the City of Santa Clara Building Inspection Division prior to issuance of a grading permit.

Mitigation Measure HM-4: Prior to initiating any work, the Removal Contractor specified in Mitigation Measure HM-3 shall prepare a Health and Safety Plan (HASP) to be implemented throughout the excavation and removal of contaminated soil from the project site. The HASP would specify safe contaminated soil handling and disposal procedures and would identify procedures and other protections for workers to prevent exposure to contaminants, inundation of excavations, excessive noise levels, and other potential hazards. The HASP would identify measures for eliminating or controlling hazards, monitoring exposure levels, worker training procedures, emergency response procedures for a variety of potential emergencies, first aid and medical treatments, and required record keeping.

Mitigation Measure HM-5: Throughout the contaminated soil excavation and removal required by Mitigation Measure HM-3, the soil and excavation areas shall be watered as necessary to prevent airborne dust, including dust generated by wind blowing over disturbed dry soil. Water used for this purpose shall not be allowed to flow outside of the immediate work area, and shall be contained by berms, if necessary.

Mitigation Measure HM-6: Air monitoring and/or sampling for lead and volatile organic compounds (VOCs) shall be conducted throughout the soil excavation and removal to document that lead and total VOC concentrations at the work zone perimeter do not exceed federal Occupational Safety and Health Administration (OSHA) action levels. Measurements shall be taken in the site workers’ typical breathing zones. Air sampling shall be performed using methods approved by the National Institute for Occupational Safety and Health (NIOSH) or the U.S. Environmental Protection Agency (USEPA). If the airborne concentration of lead exceeds 30 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) of air averaged over an 8-hour period, work shall be halted until all workers can be equipped with half-mask air purifying respirators with high-efficiency filters with a 99.97-percent efficiency rating for particles of 0.3 microns or larger. The workers shall wear the respirators for the remainder of the soil removal activities. If airborne VOC levels exceed the applicable action levels, work shall be halted until corrective action is taken to reduce emissions to acceptable limits.

Hydrology and Water Quality

Mitigation Measure WQ-1: The project sponsor shall obtain National Pollutant Discharge Elimination System (NPDES) construction coverage as required by Construction General Permit (CGP) No. CAS000002, as modified by State Water Resources Control Board (SWRCB) Order No. 2009-0009-DWQ. Pursuant to the Order, the project applicant shall electronically file the Permit Registration Documents (PRDs), which include a Notice of Intent (NOI), a risk assessment, site map, signed certification, Stormwater Pollution Prevention Plan (SWPPP), and other site-specific PRDs that may be required. At a minimum the SWPPP shall incorporate the standards provided in the Association of Bay Area Governments' *Manual of Standards for Erosion and Sedimentation Control Measures* (2005), the California Stormwater Quality Association's *California Stormwater Best Management Practices Handbook* (2009), the prescriptive standards included in the CGP, or as required by the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP), whichever are applicable and more stringent. Implementation of the plan will help stabilize graded areas and reduce erosion and sedimentation. The plan shall identify Best Management Practices (BMPs) that shall be adhered to during construction activities. Erosion-minimizing efforts such as hay bales, water bars, covers, sediment fences, sensitive area access restrictions (for example, flagging), vehicle mats in wet areas, and retention/settlement ponds shall be installed before extensive clearing and grading begins. Mulching, seeding, or other suitable stabilization measures shall be used to protect exposed areas during construction activities.

Mitigation Measure WQ-2: All cut-and-fill slopes shall be stabilized as soon as possible after completion of grading. No site grading shall occur between October 15th and April 15th unless approved erosion control measures are in place.

Noise

Mitigation Measure N-1: To achieve interior noise exposures in compliance with the 45-dB Community Noise Equivalent Level (CNEL) standard of the City of Santa Clara, the following design features shall be incorporated into the project:

- a) All townhomes shall be provided with a suitable form of forced-air mechanical ventilation, as determined by the Santa Clara Planning and Inspection Department, so that windows can be kept closed at the occupants' discretion to control interior noise and achieve the interior noise standards. All townhomes shall be provided with operable double-glazed windows.
- b) All windows shall be installed in an acoustically-effective manner so that sliding window panels form an air-tight seal when in the closed position. Window frames shall be caulked to the wall opening around their entire perimeter

with a non-hardening caulking compound to prevent sound infiltration.

- c) Sound-rated windows and doors with a Sound Transmission Class (STC) rating of STC 28 or better shall be provided at the townhome façades designated in green on Figure N-4.
- d) Sound-rated windows and doors with an STC rating of STC 32 or better shall be provided at the townhome façades designated in blue on Figure N-4.
- e) Sound-rated windows and doors with an STC rating of STC 36 or better shall be provided at the townhome façades designated in red on Figure N-4.

Mitigation Measure N-2: Pursuant to the Municipal Code, noise-generating construction activities shall be limited to the hours of 7:00 a.m. to 6:00 p.m. Monday through Friday and 9:00 a.m. to 6:00 p.m. on Saturdays. Construction shall be prohibited on Sundays and holidays.

Mitigation Measure N-3: The project sponsor shall require the construction contractor to equip all construction equipment driven by internal combustion engines with intake and exhaust mufflers which are in good condition, appropriate for the equipment, and no less effective than those originally installed by the manufacturer. The manufacturers' noise abatement features, such as mufflers, engine covers, and engine vibration isolators, shall be intact and operational. All construction equipment shall be inspected weekly to ensure proper maintenance and presence of noise control devices (e.g., mufflers and shrouding, etc.). Unnecessary idling of internal combustion engines shall be strictly prohibited.

Mitigation Measure N-4: Wherever possible, hydraulic tools shall be used instead of pneumatic impact tools. "Quiet" air compressors and other stationary noise sources shall be utilized when appropriate technology is available. Construction staging areas, maintenance yards, air compressors, portable power generators, and other construction-oriented operations shall be located as far as reasonably possible from noise-sensitive receptors. Temporary noise barriers shall be constructed to screen stationary noise-generating equipment when located near adjoining sensitive land uses.